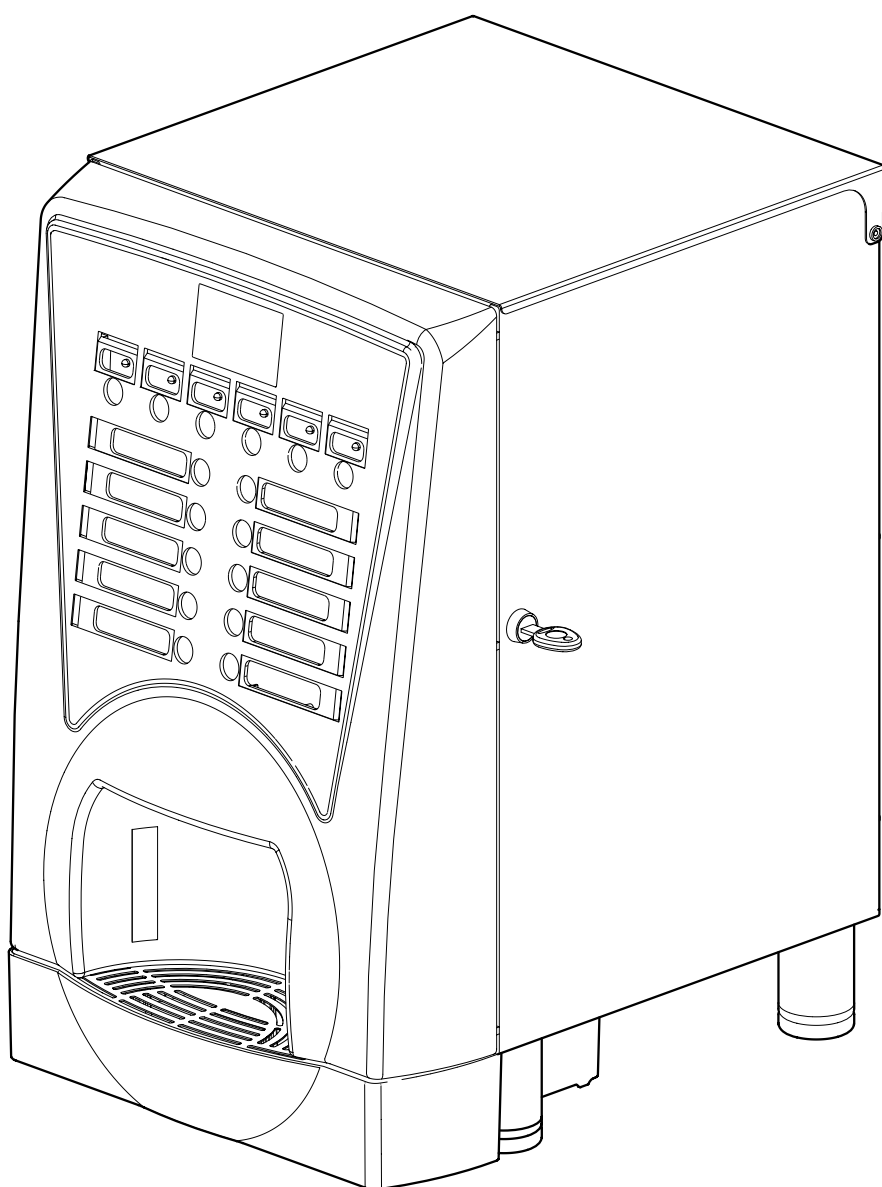




MANUALE USO E MANUTENZIONE  
USE AND MAINTENANCE MANUAL



*The iQ*



# DECLARATION OF CONFORMITY

Prosyd Srl  
Via Roma,43 - 22077 Olgate Comasco (CO) Italy

states that the range of professional coffee machines model:

## THE IQ ES/SOL

is complying with the safety measures foreseen by the directives:

1. **Low Voltage Directive** EEC 73/23 → EEC 93/68 → EEC2006/95 - LV -
2. **Electromagnetic compatibility** EEC 89/336 → EEC 91/263 → EEC 92/31 →  
93/68 → EEC 2004/108 -EMC-
3. **MATERIALS AND ARTICLES IN CONTACT WITH FOOD**
  - (1) REG. (EC) 1935/2004 on materials and articles intended to come into contact with food
  - (2) REG. (EC) 1895/2005 on the restriction of use of certain epoxy derivatives in materials and articles intended to come into contact with food
  - (3) DIR. 2002/72 EC relating to plastic materials and articles intended to come into contact with foodstuffs

The tests have been made in accordance with the Harmonized European Standards

### 1) LOW VOLTAGE (Electrical safety LV):

EN 60335-1 : 2002 + A1+ A11	(Safety of Household and Similar Electrical Appliances)
EN 60335-2-75: 2004+ A1	(Safety for Vending and dispensing Machines)
EN ISO 11201 + EN ISO 3744	Measurement of acoustic noise
	Sound Pressure Level: LpA < 70 dB(A)

### 2) ELECTROMAGNETIC COMPATIBILITY (EMC)

EN 55014-1:2000+A1+A2	EN 61000-4-4
EN 55014-2:1997+A1	EN 61000-4-5
EN 61000-3-2: 2000+A2	EN 61000-4-6
EN 61000-3-3:1995+A1+A2	EN 61000-4-11
	EN 61000-4-2
EN 50366:2003 +A1	Measurement of Electromagnetic field

### 3) MATERIALS AND ARTICLES IN CONTACT WITH FOOD

D.M. 21-03-1973 and its amendements ⇒ D.M. 2006 May 4th nr. 227, and receiptment of European Directives:82/711/EEC, 85/572/EEC, 93/8/EEC, 97/48/EC, 2002/72/EC, 2004/13/EC, 2004/19/EC, 2005/79/EC, Reg. EC n. 1935/04 e Reg.EC n. 1895/2005.

Olgate Comasco (CO), 2008 SEPTEMBER

CHIEF EXECUTIVE OFFICER  
Aviel Dafna

*BEFORE USING THE MACHINE, READ THIS MANUAL CAREFULLY FOR ITS CORRECT USE INACCORDANCE WITH THE CURRENT SAFETY STANDARDS.*

## SAFETY SYMBOLS



**ATTENTION:** Important safety indications



**READ** the instruction manual machine carefully before using the machine



For any service or maintenance **switch off** the machine



**ATTENTION:** machine switched on



**ATTENTION:** hot parts in contact!

## PICTOGRAMS



### IMPORTANT NOTICES

#### USER



The user is defined as the person authorized to collect drinks from the automatic beverage machine .  
The user is not allowed to undertake any maintenance operations either ordinary or extraordinary.  
In the event of a fault the user is obliged to notify the maintenance technician or the person responsible for running the automatic beverage machine .

#### MAINTENANCE TECHNICIAN



The maintenance technician is defined as being the person responsible for filling up the containers with soluble products, sugar, coffee, stirrers and cups.  
The maintenance technician is also responsible for cleaning the beverage machine (see operations indicated in chapter 7.0). In the event of a fault the maintenance technician must call the installation technician.

#### INSTALLATION TECHNICIAN



The installation technician is defined as the person responsible for the installation of the automatic beverage machine , the starting up operations and the function settings.  
Each regulation operation is the exclusive responsibility of the installation technician who also holds the programming access password.

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1.0

### PREMISE

#### 1.1 Important notices

This automatic beverage machine has been designed and constructed in full accordance with current safety regulations and is therefore safe for those who follow the ordinary filling and cleaning instructions as indicated in this manual.



*The user must not under any circumstances remove the guards that require a tool for removal.*

Some maintenance operations (to be done solely by specialized technicians and indicated in this manual with a special symbol) require that specific safety protections of the machine must be switched off.

In accordance with the current safety regulations, certain operations are the exclusive responsibility of the installation technician, and the ordinary maintenance technician may have access to specific operations on with specific authorization.

The acquaintance and absolute respect, from a technical point of view, of the safety instructions and of the danger notices contained in this manual, are fundamental for the execution, in conditions of minimum risk, for the installation, use and maintenance of this machine.



1.2

### General Instructions

*Knowledge of the information and instructions contained in the present manual is essential for a correct use of the automatic vending machine on the part of the user.*

- *Interventions by the user on the automatic vending machine are allowed only if they are of his competence and if he has been duly trained.*

*The installation technician must be fully acquainted with all the mechanisms necessary for the correct operation of the machine.*

- *It is the buyer's responsibility to ascertain that the users have been trained and are informed and regulations indicated in the technical documentation supplied.*

*Despite the full observance of the safety regulations by the constructor, those who operate on the automatic dispensers must be fully aware of the potential risks involved in operations on the machine.*

- *This manual is an integral part of the equipment and as such must always remain inside of the same, so as to allow further consultations on the part of the various operators, until the dismantlement and/or scrapping of the machine.*
- *In case of loss or damage of the present manual it is possible receive a new copy making application to the manufacturer, with prior indication of the data registered on machines' serial number.*
- *The functional reliability and optimization of machine's services are guaranteed only if original parts are used.*
- *Modifications to the machine not previously agreed on with the construction company and undertaken by the installation technician and/or manager, are considered to be under his entire responsibility.*

All the operations necessary to maintain the machine's efficiency, before and during its use are at the users charge.

- Any manipulations or modifications made to the machine that are not previously authorized by the manufacturer, relieve the latter from any responsibility for damages deriving from, and will automatically result in the cancellation of the machine guarantee terms.
- This manual reflects the status at the moment of the emission of the automatic vending machine on the market; possible modifications, upgrading, adaptmets that are done the machine and that are subsequently commercialized do not oblige the constructor neither to intervene on the machine previously supplied, nor, neither to update the relative technical documentation supplied together with the machine.
- It is however the constructor faculty, when deemed opportune and for valid motives, to adjourn the manuals already present on the market, sending to their customers adjournment sheets that must be kept in the original manual.

Possible technical problems that could occur are easily resolvable consulting this manual; For further information, contact the beverage machine from whom the machine has been purchased.

When calling it is advisable to be able to give the following information:

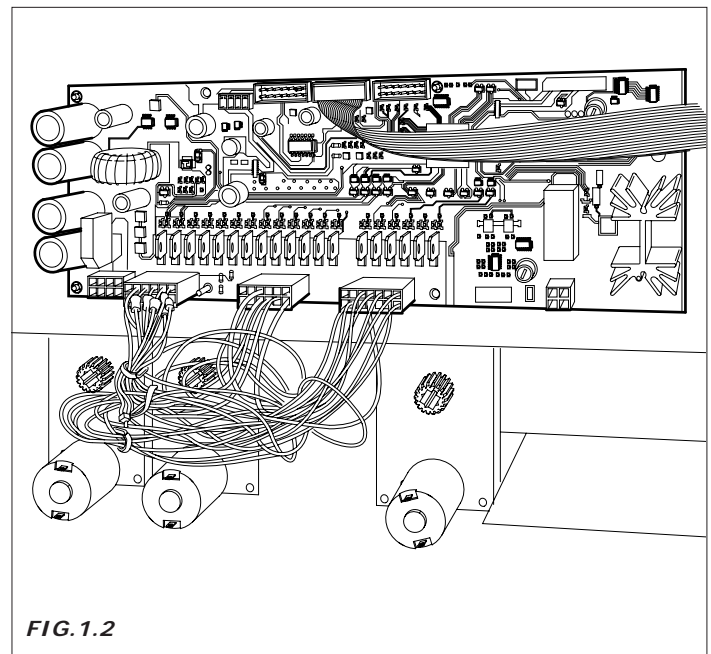
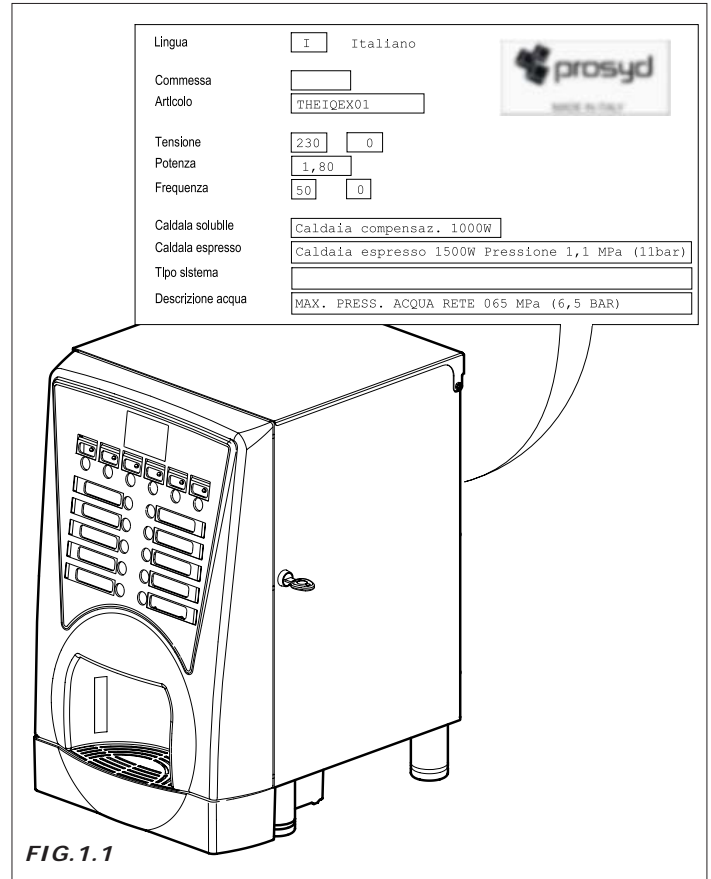
- The data registered on the serial number label (Fig.1.1)
- The version of the programme contained in the microprocessor (adhesive label applied to the component the assembled on the Master board) (Fig.1.2).

The constructor declines any responsibility for damages caused to people or belongings in consequence to:

- Incorrect installation
- Inappropriate electrical and/or water connection.
- Inadequate cleaning and maintenance
- Not authorized modifications
- Improper use of the beverage machine
- Not original spare parts
- Under no circumstances is the constructor obliged to compensate for eventual damage resulting from the forced suspension of drink deliveries as the result of faults.
- Installation and maintenance operations, must be done exclusively by qualified technical personnel with prior training for carrying out these duties.
- For refilling use only food products that are specific for automatic vending machines.
- The automatic beverage machine is not suitable for external installation. The machine must be installed in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses (ex. big kitchens.).

Do not use water jets to clean the machine.

- If at the moment of the installation, if conditions differing from those indicated in the present manual, or should the same undergo changes in time, the manufacturer must be immediately contacted before use of the machine.
- Also check that any other eventual norms or regulations as laid down by national or local legislation are taken into account and



## 2.0 TECHNICAL CHARACTERISTICS

Height (A)	mm 610
Width (B)	mm 387
Depth (C)	mm 480
Weight	kg 32,2
Power Supply	V 230 - V 120
Power frequency	Hz. 50 - Hz. 60
Installed power <sup>(1)</sup>	From 1,63 to 2,1 kW

### AVERAGE CONSUMPTIONS:

Water supply connection	3/4" gas
Electrical supply connec.	Schuko plug

### WATER SUPPLY

from main supply with pressure between 0.5 and 6.5 bar

### BOILER RESISTANCES

of armoured type:

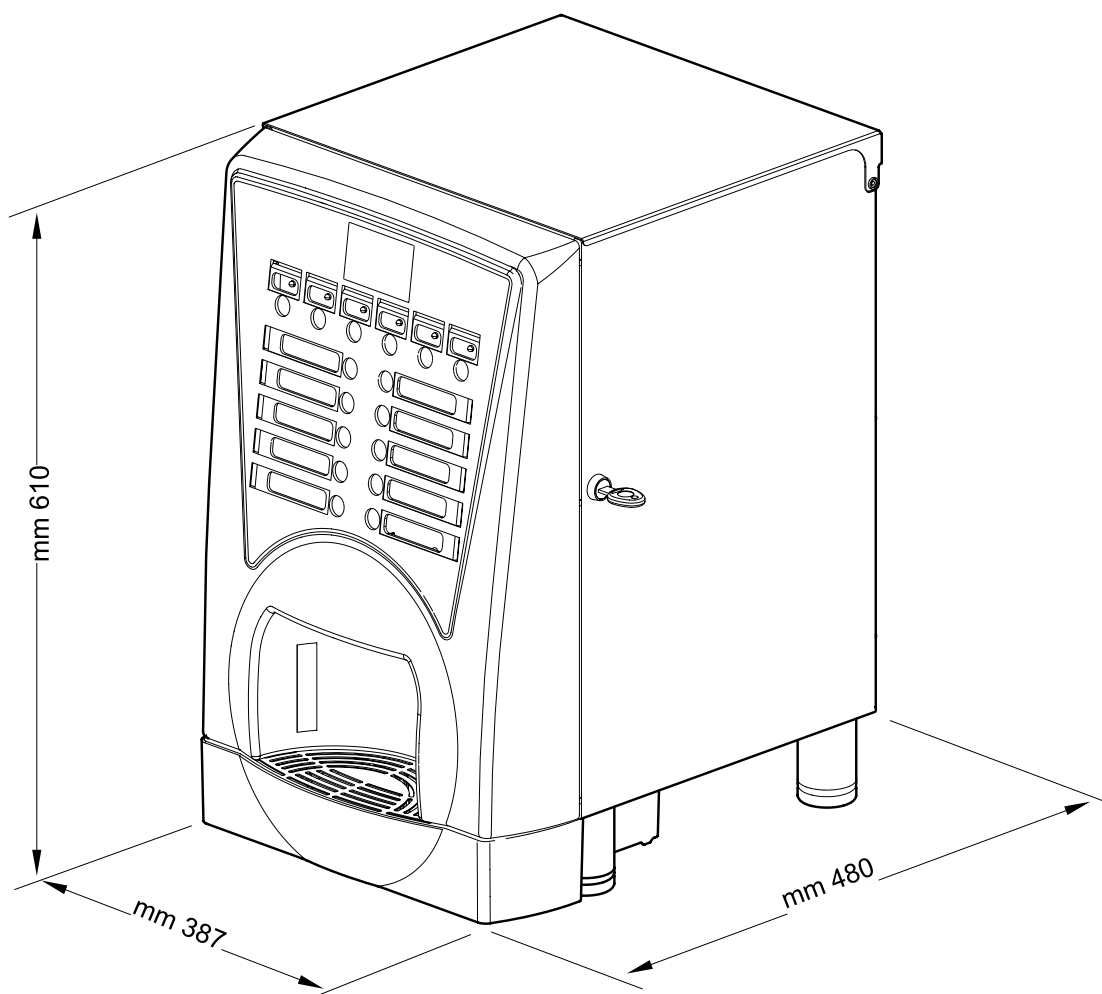
1500 W for espresso boiler version

2000 W for the instant powder boiler version

### PRODUCT CONTAINER CAPACITY

Coffee bean container	kg 0,8
Instant coffee	kg 0,35
Powder milk	kg 0,5
Powder milk (Double unit)	kg 1,0
Chocolate	kg 1,0
Chocolate (Double unit)	kg 2,0
Lemon tea	kg 1,4
Natural tea	kg 0,85
Broth	kg 1,2
Sugar	kg 1,3

<sup>(1)</sup> Check the rated output indicated on the data plate applied by the beverage machine .





### 3.0 GENERAL TECHNICAL DESCRIPTIONS

#### 3.1 Machine description Espresso version (Fig. 3.1)

- 1 Keyboard cards
- 2 Container units for soluble drinks and sugar
- 3 Master board
- 4 Espresso boiler
- 5 Coffee group and grinder
- 6 Water supply mains inlet
- 7 Power supply mains infeed

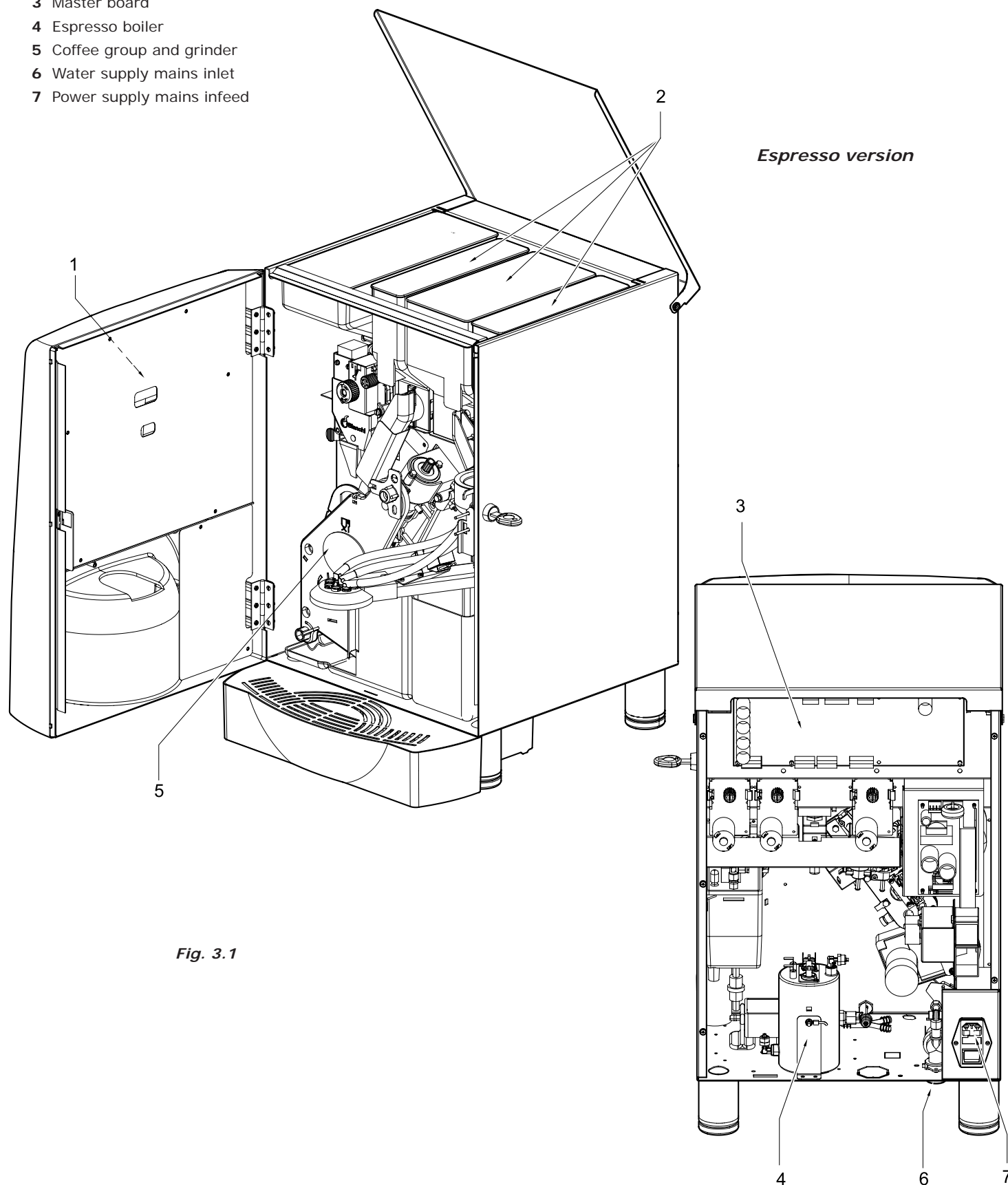


Fig. 3.1

### 3.2 Machine description Instant version (Fig. 3.2)

- 1 Keyboard cards
- 2 Container units for soluble drinks and sugar
- 3 Master board
- 4 Instant boiler
- 5 Water supply mains inlet
- 6 Power supply mains infeed

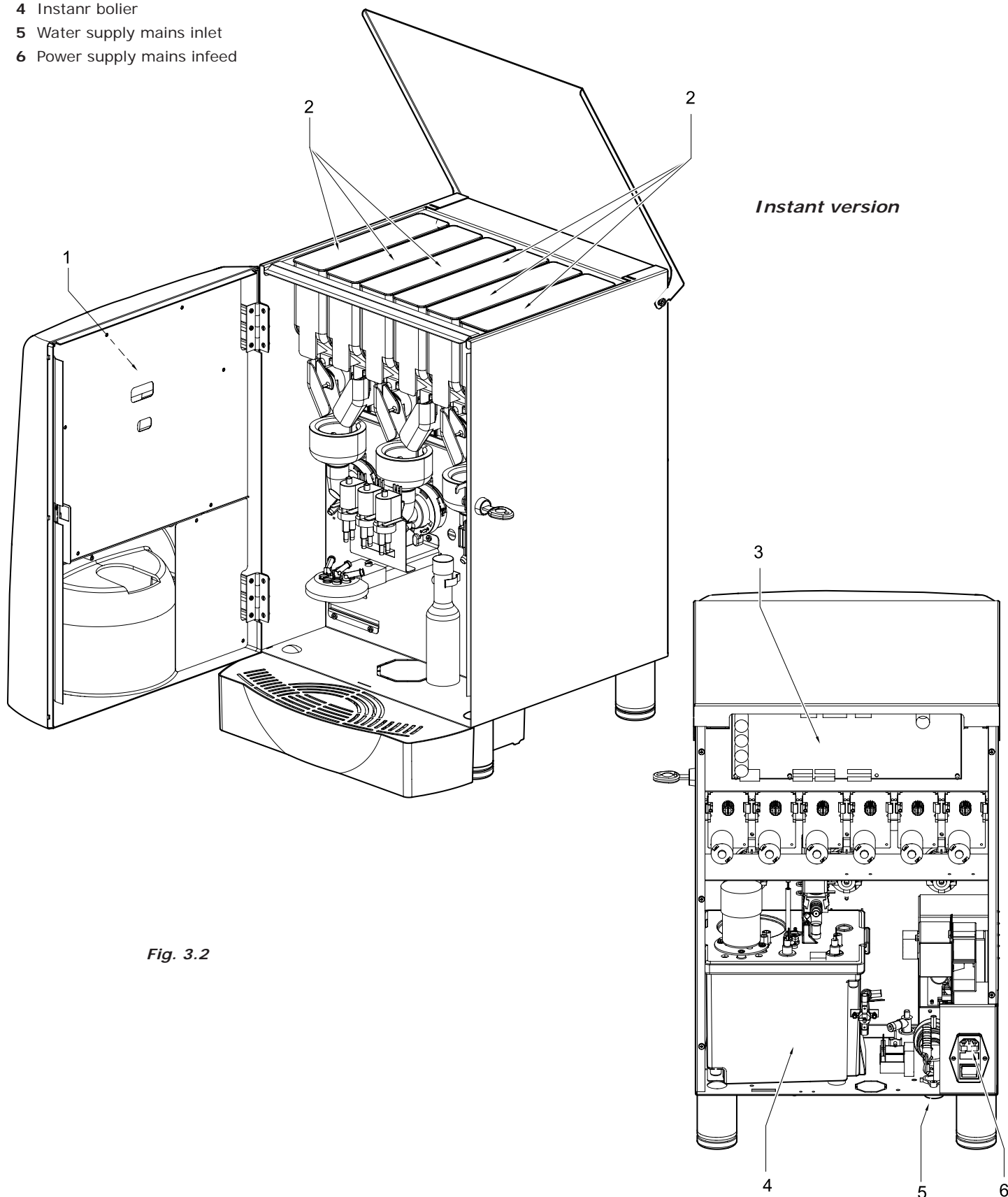


Fig. 3.2



### 3.3 Foreseen use

The beverage machine is exclusively for the dispensing of drinks, prepared mixing food substances with water (by infusion as far as concerns coffee).

For this purpose use products declared as suitable by the manufacturer for automatic distribution in open containers.

The plastic cups and the stirrers for sugar mixing will be placed at the disposal of the user as they are not automatically dispensed by the "The iQ" beverage machine.

The drinks must be consumed immediately and in no case are to be kept for subsequent consumption.

### 3.4 Basic operation concepts

During the normal functioning the beverage machine remains in standby status.

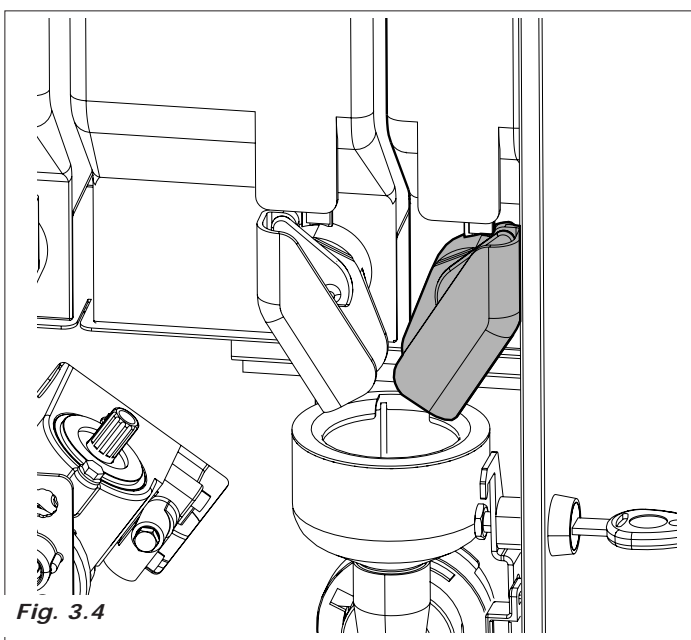
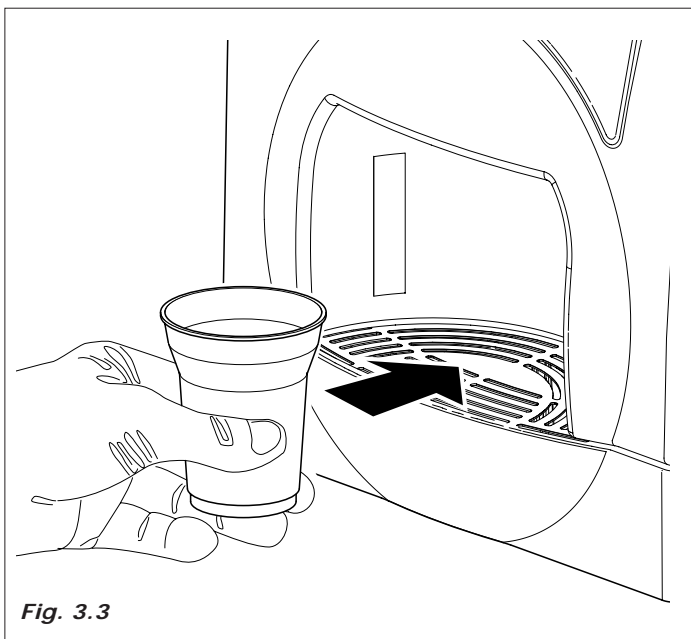
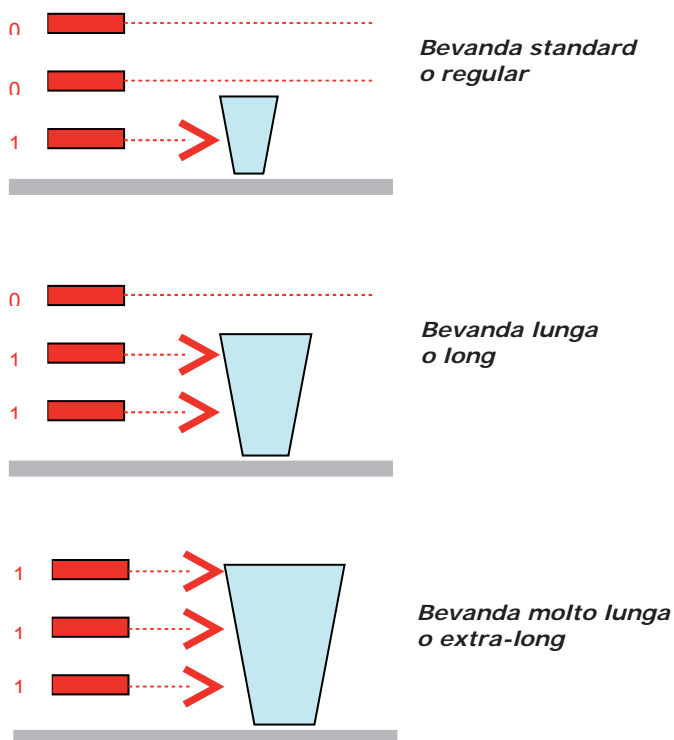
Introducing the necessary amount, according to the set price, and after pressing the key relative to the desired drink, the drink dispensing cycle is activated and can be divided different processes:

#### CUP AND SPOON COLLECTION

The "The iQ" automatic beverage machine does not feature an automatic cup and spoon beverage machine. The user must therefore procure the same in an independent manner from the special beverage machines placed at disposal in the vicinity of the beverage machine, and must undertake to position them correctly in the delivery compartment (fig. 3.3).

The presence and/or dimension of the cup can be automatically detected by the beverage machine (optional feature) by way of 3 photo-sensors lodged into the cup compartment.

In general, the acknowledgement of the size of the cup is based on the following principle outlines:



#### SUGAR DISPENSER

Where provided for and where requested, a set, maximum dose quantity of sugar is dispensed.

For both versions, the sugar is pre-mixed in with the beverage.

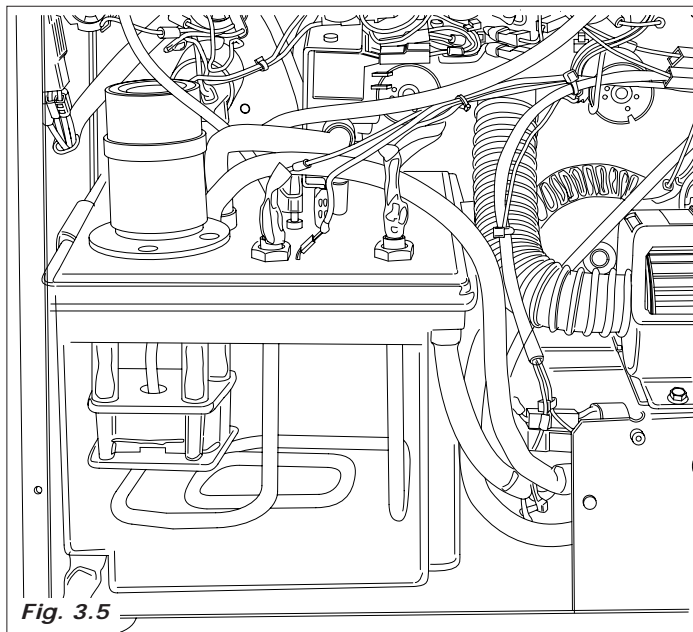
The delivery procedure is as follows:

The geared motor operates the sugar container volute, pouring the required amount inside the powder conveyor (fig. 3.4).

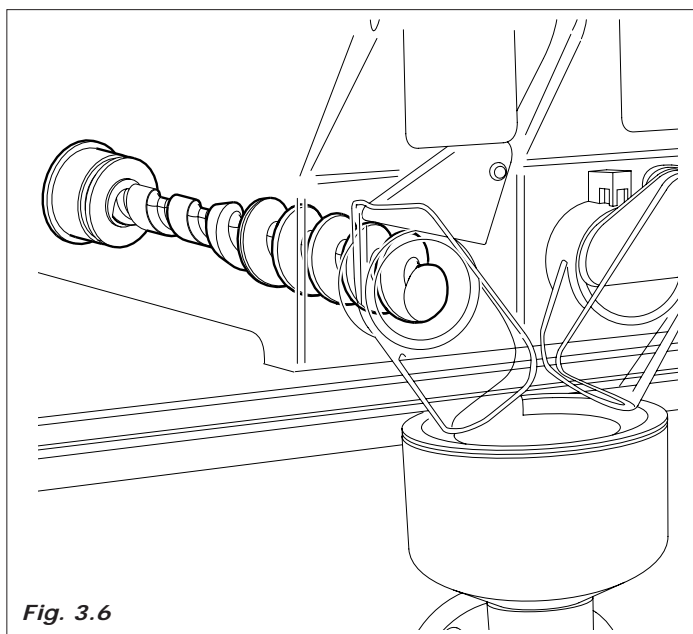
### INSTANT DRINKS

According to the type drink requested and to the beverage machine model, several of the various processes described here below can be activated.

- The solenoid valve fixed to the instant boiler is engaged in order to deliver the required quantity of water into the mixer (fig.3.5).
- The pump that delivers the required amount of water is activated; and controlled by a special electronic device (volumetric counter), which withdraws from the instant boiler.
- The instant product geared motor activates the helicoidal screw conveyor so as to dispense the quantity of product programmed into the mixer (in some versions more than one product can be conveyed into the same mixer) (Fig.3.6)
- once the preset quantity of water and powder is dispensed, the whipper motor is switched off.



**Fig. 3.5**



**Fig. 3.6**

### ESPRESSO COFFEE

This process functions only the models equipped with the coffee espresso group, after the cup and sugar dispensing processes have been effected.

- the grinder is activated until it reaches the dose of ground coffee set by the doser (Fig. 3.7)
- the doser electromagnet is activated, causing the opening of the door and consequent fall of the coffee into the brew chamber
- the rotation group geared motor brings it into the dispensing position and simultaneously compresses the ground coffee (Fig. 3.8).
- the pump that dispenses the quantity of programmed water and that is controlled by a specific electronic device, (volume meter), withdrawing the water from the coffee boiler (Fig. 3.9).
- the coffee group geared motor is activated again so as to bring again into standby position; during this movement the used coffee grounds are expelled (Fig. 3.10).

The operational sequence (coffee grinding and release) may occur in an inverse order according to the type of programming involved.

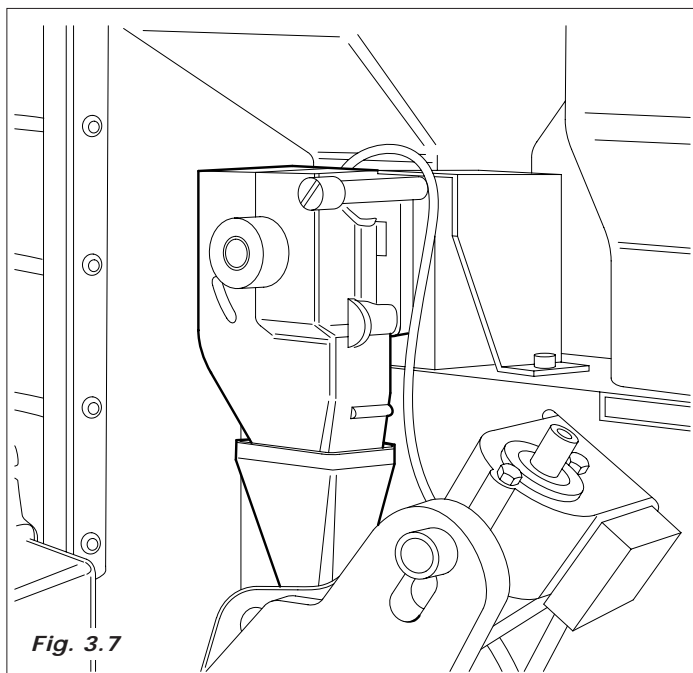


Fig. 3.7

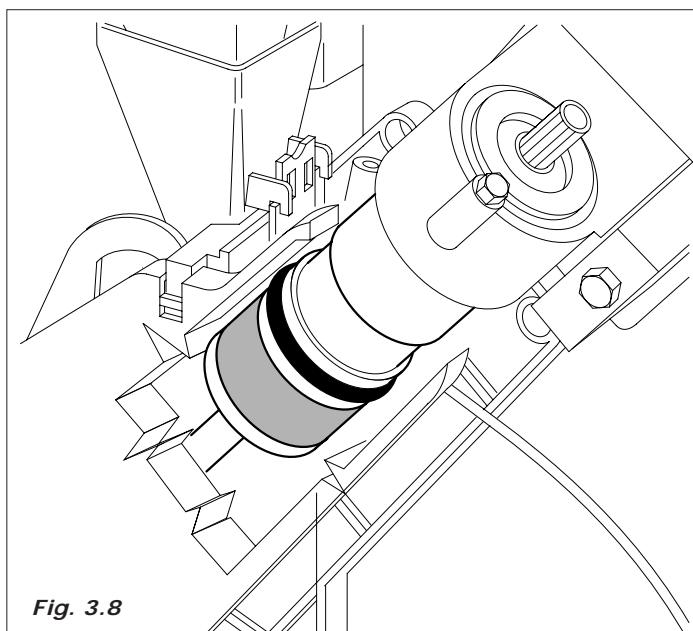


Fig. 3.8

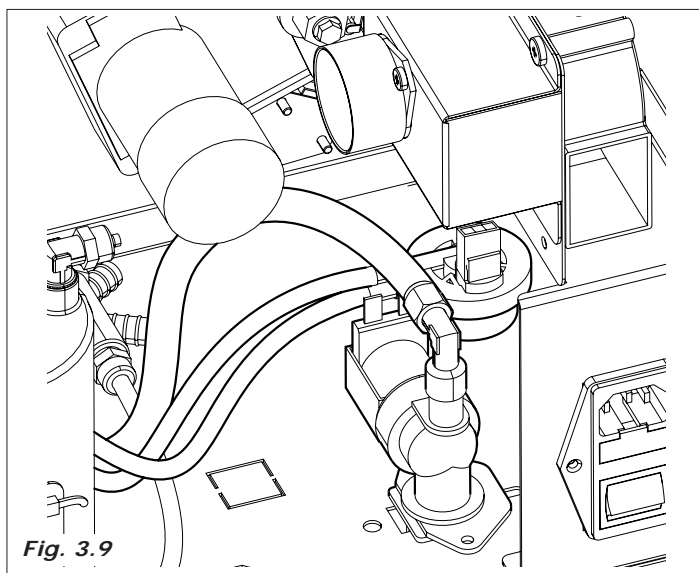


Fig. 3.9

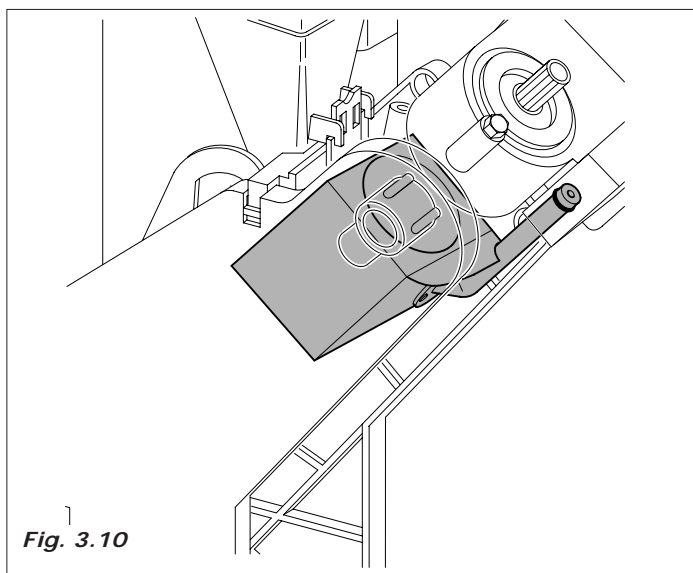


Fig. 3.10



## 4.0 MOVING AN AUTOMATIC VENDING MACHINE

### 4.1 Moving and transport (Fig.4.1)

The beverage machine must be shifted by 2 people (Fig.4.1).



Avoid :

- lifting the beverage machine with ropes or presses
- dragging the beverage machine
- upset or lay down the beverage machine during transport
- give jolts to the beverage machine

Prevent the beverage machine from:

- being knocked
- Stacking other objects on it
- Being exposed to the elements
- Positioned in damp places

The construction company is not liable for any damage which may be caused for the partial or complete non-observance of the warning notices indicated above.

### 4.2 stocking

For eventual stocking, avoid laying several machines over each other, maintain it in vertical position, in dry places with temperatures not inferior to 1°C.

### 4.3 Packing

The beverage machine is supplied in a cardboard box protected by polystyrene packaging (Fig.4.2).

The automatic beverage machine will be delivered packed, assuring both a mechanical protection and protection against damages from the external environment.

On the package labels are applied indicating:

- manœuver with care
- don't turn upside-down
- protect from the rain
- don't superimpose
- protect from sources of heat
- not resistant against bumps
- type of beverage machine and serial number.

### 4.4 Reception

Upon reception of the automatic beverage machine you need to check that the same has not suffered damages during the transport.

If damages of any nature are noticed place a claim with the forwarder immediately.



At the end of the transport the packing must result without damages which means it must not :

- present dents, signs of bumps, deformations or damages of the external packaging
- present wet zones or signs that could lead to suppose that the packing has been exposed to rain, cold or heat.
- present signs of tampering

### 4.5 Unpacking

Remove the beverage machine from its packaging, lifting the polysterene panels and removing it from the box (Fig.4.2).

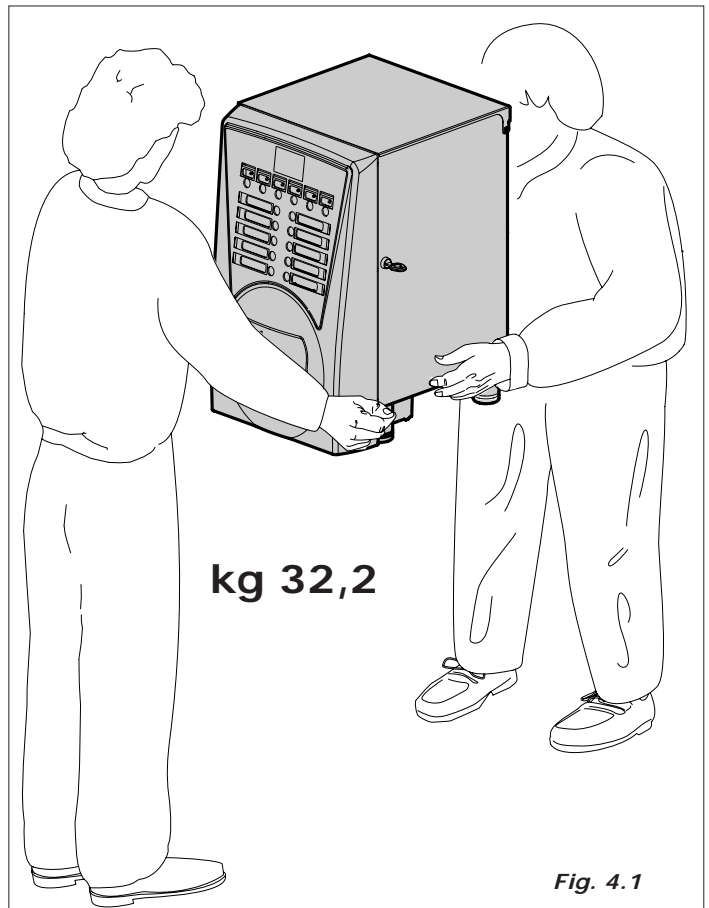


Fig. 4.1

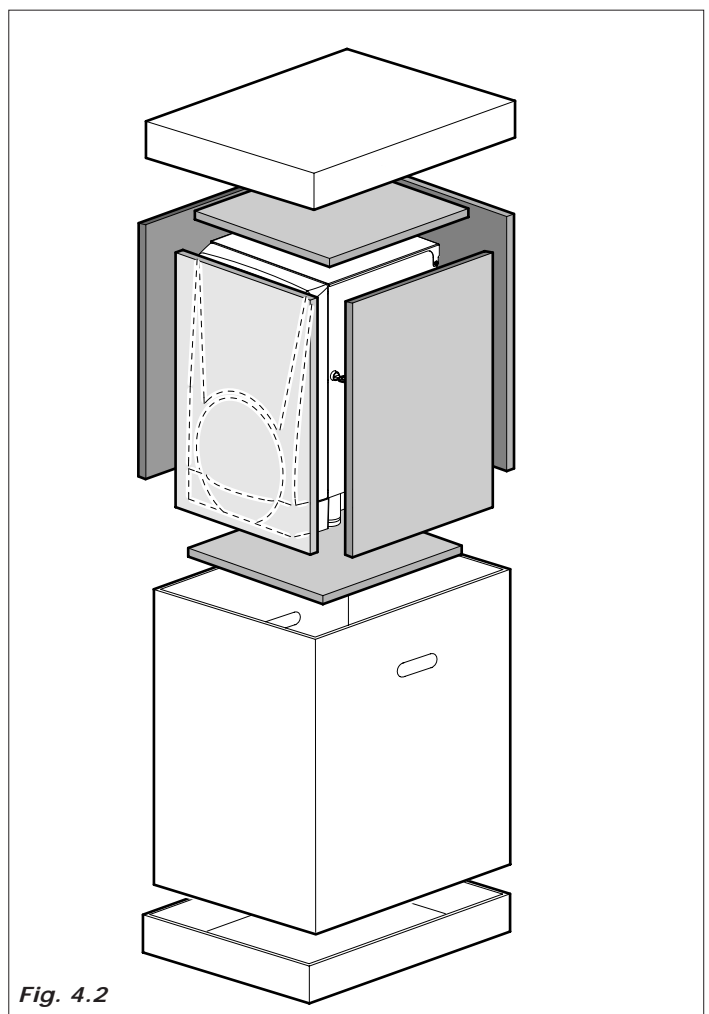


Fig. 4.2

- remove the key from the drink dispensing chamber (Fig. 4.3)

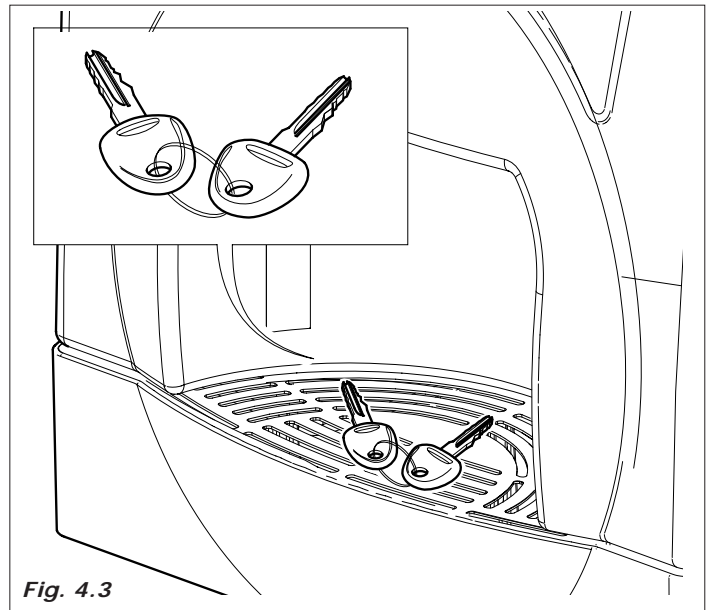
In some versions the key is not provided because the beverage machine is equipped with a magnetic closing option.

- open the door of the beverage machine and remove the adhesive tape from the components listed here below:

- coin box
- coin mechanism cover / keyboard cards
- product containers



*The packing material must not be left accessible to others, as it is a potential environmental pollution sources. For the disposal contact qualified companies authorized.*



## 5.0 SAFETY NORMS



### ATTENTION!

- before using the automatic beverage machine, read this manual carefully.
- The installation and maintenance operations must be performed exclusively by qualified technical personnel.
- The user must not in any circumstance be able accede to those parts of the automatic beverage machine that are protected and require a tool in order to be accessible.
- The knowledge and the absolute respect, from a technical point of view of the safety instructions and of the danger notices contained in this manual, constitute the basis for the operation, in conditions of minimum risk, of the installation, starting and maintenance of the machine.



Always disconnect the POWER CABLE before maintenance or cleaning interventions.



**ABSOLUTELY DO NOT INTERVENE ON THE MACHINE AND DO NOT REMOVE ANY PROTECTION BEFORE THE COOLING OF THE HOT PARTS!**

- The functional reliability and optimization of machine's services are guaranteed only if original parts are used.
- **The beverage machine is not suitable for external installation. The machine must be connect in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses (ex. big kitchens). Do not use water jets to clean the machine.**
- In order to guarantee normal operation, the machine must be installed in areas that the environmental temperature is between a minimum of -1°C and a maximum of +32°C and humidity of not over 70%.
- In order to guarantee a regular operation, always maintain the automatic beverage machine in perfect cleaning conditions
- **Bianchi Vending S.p.A.** declines all responsibility for damages product to people or belongings in consequence to:
  - Incorrect installation
  - Inappropriate electrical and/or water connection.
  - Inadequate cleaning and maintenance
  - Not authorized modifications
  - Improper use of the beverage machine
  - Not original spare parts
- Furthermore verify observance of any other eventual local and national standards.

## 6.0 INSTALLATION



### 6.1 Positioning

- As already specified in paragraph 5.0, "Safety norms", the beverage machine is not suitable for external installation. The machine must be connect in dry places, with temperatures that never go below 1°C it must not be installed in places where cleaning is done with water hoses(ex. big kitchens.) . It must be installed in places without danger of explosions or fires.
- If positioned near to a wall, there must be a minimum distance from the wall of at least 5 cm. (Fig.6.1) so as to allow a regular ventilation. In no case cover the beverage machine with cloths or similar.



**WARNING!** Do not position the device near inflammable objects, keep a minimum safety distance of 30 cm.

**Bianchi Vending S.p.A.** declines all responsibility for inconveniences due to the non observance of the above mentioned installation norms.

If the installation is made in safety evacuation corridors make sure that with the beverage machine door open there is anyhow sufficient space to pass by (Fig.6.1).

So as to avoid that the floor gets dirty, due to accidental spilling of the products, use, if necessary, under the beverage machine, a protection sufficiently wide to cover the beverage machine's operating space.



### 6.2 Connection to the main water supply

Before proceeding with the connection of the beverage machine to the water main supply verify the following water characteristics:

- that it is drinkable (eventually through an laboratory's analysis certification)
- it has a pressure comprised between 0.5 and 6.5 bar ( if this should not be the case, use a pump or a water pressure, reducer according to the case).

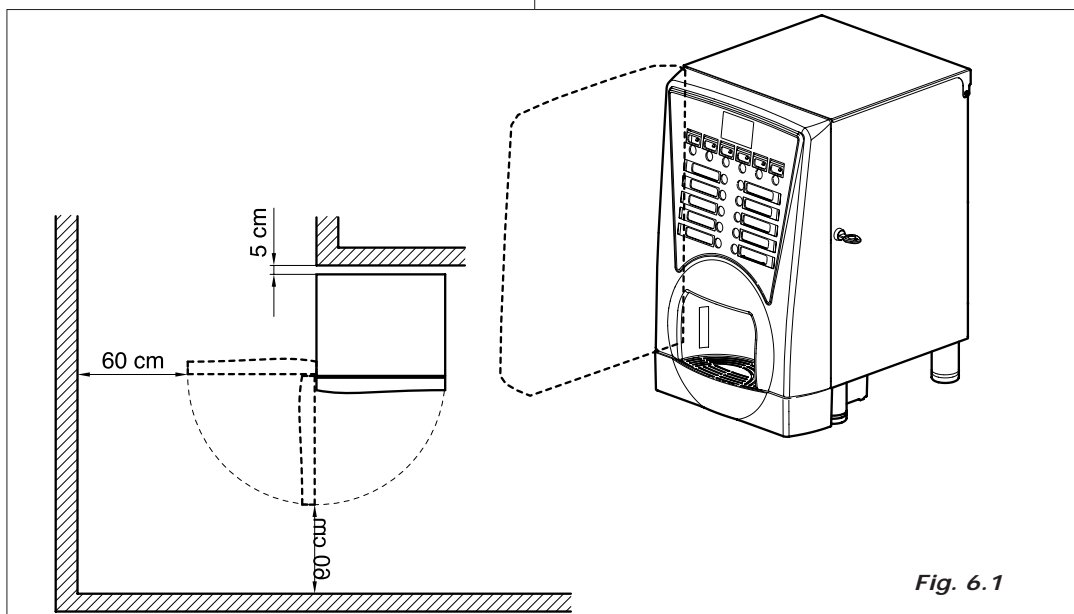


Fig. 6.1



- install, if not present, a tap in an accessible position to isolate the machine from the water mains should it be found to be necessary (Fig.6.2).
- before making water connections, make some water flow out of the tap so as to eliminate possible traces of impurities and dirt (Fig.6.3)
- connect the cock to the beverage machine, using a pipe in nylon material suitable for food products and suitable for the mains pressure. In the event of the use of a flexible pipe it is necessary to fit the reinforcement bush supplied inside (Fig. 6.4).
- the foreseen connection is a 3/ 8 gas (Fig.6.5).

### 6.3 Main Power supply connection

The beverage machine is suitable for operation at single-phase voltage of 230 volt and is protected by 2 12.5 A fuses and by a 10A fuse on the MASTER card.

#### *We suggest to check that:*

- the tension of net of 230 V doesn't have a difference of more than  $\pm 10\%$
- The power supply output is able to bear the power load of the machine.
- use a system of diversified protection
- position the machine in such a way as to ensure that the plug remains accessible

The machine must be connected to earth in observance with the current safety norms.

For this reason, verify the plant's earth wire connection to ascertain that it is efficient and it answers national and European safety electric standards. If necessary require the intervention qualified personnel for the verification of the plant.

- The beverage machine is equipped with a power supply cable of H05VV-F 3x1 mm<sup>2</sup>, with SCHUKO plug (Fig.6.6).
- The sockets that are not compatible with that of the machine must be replaced. (Fig.6.7).
- The use of extension, adapters and/ or multiple plugs is forbidden.



**Bianchi Vending S.p.A.** declines all responsibility for damages deriving for the complete or partial failure to observe these warnings.

Should the power cable be found to be damaged, immediately disconnect from the power socket.

**The power supply cables are to be replaced by skilled personnel.**

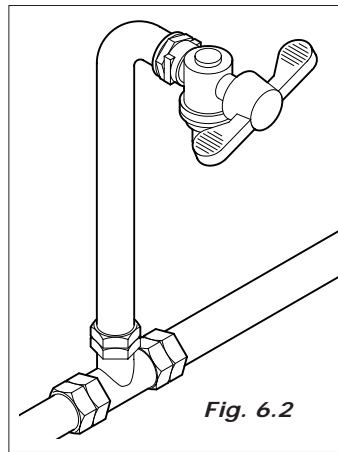


Fig. 6.2

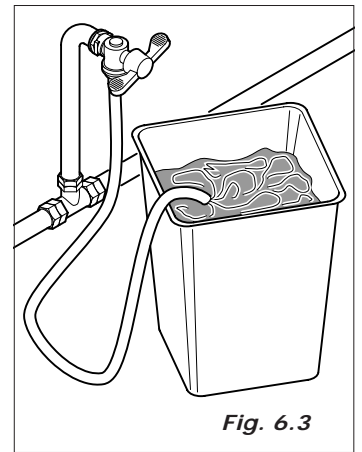


Fig. 6.3

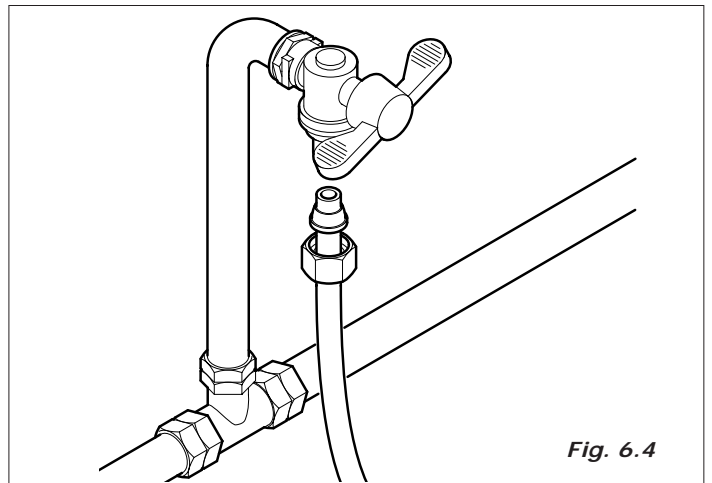


Fig. 6.4

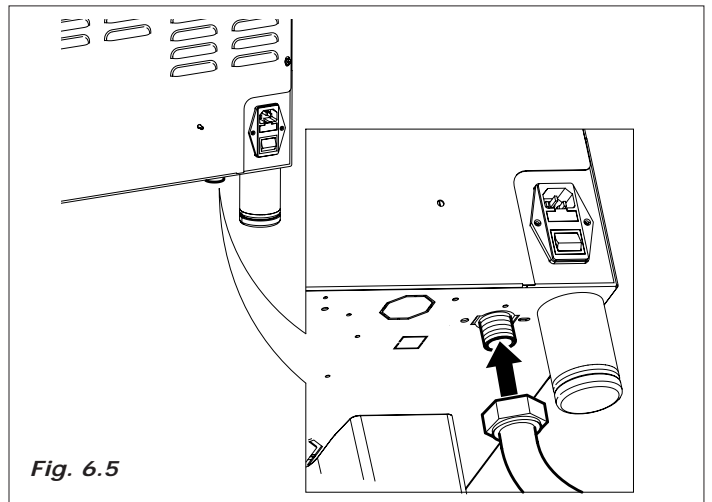


Fig. 6.5

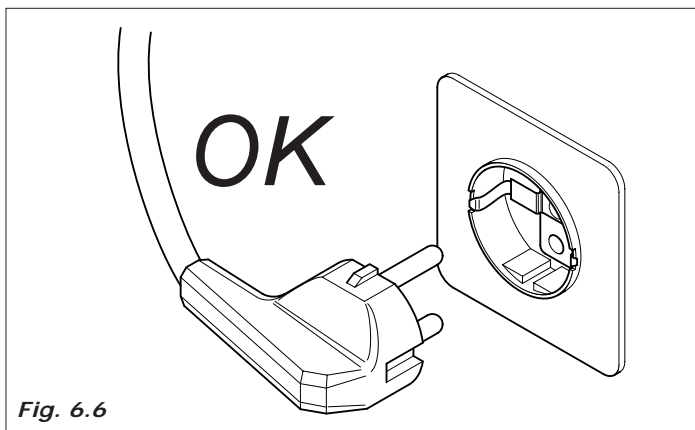


Fig. 6.6

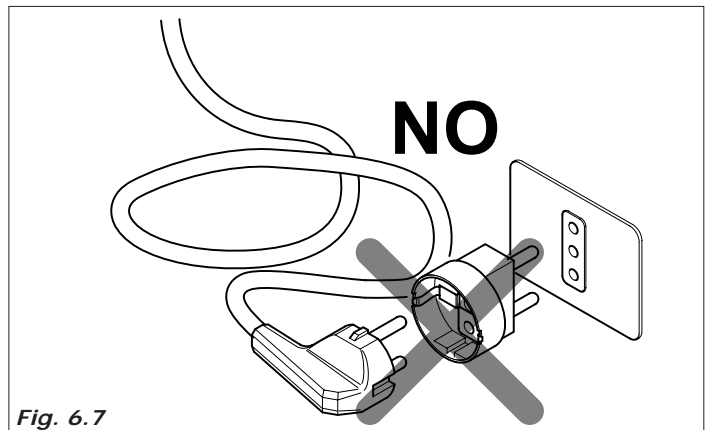


Fig. 6.7

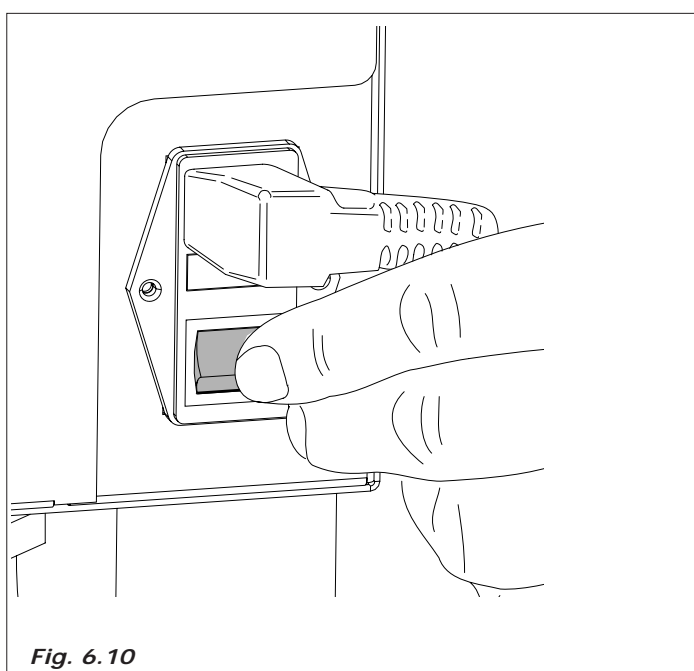
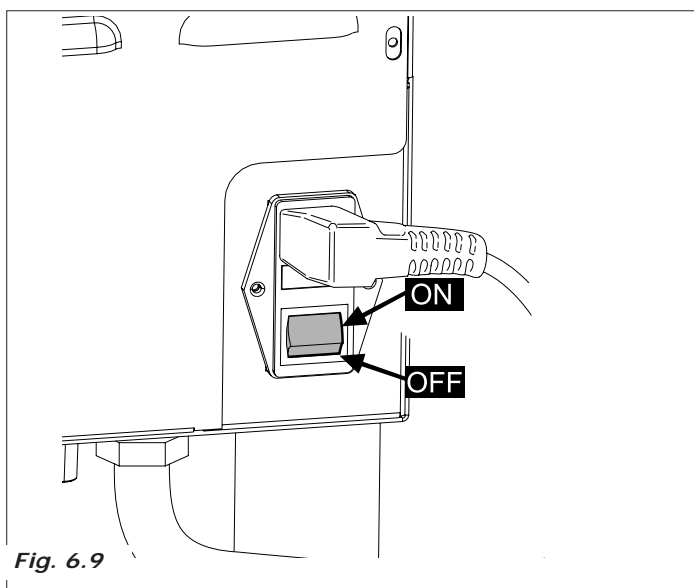
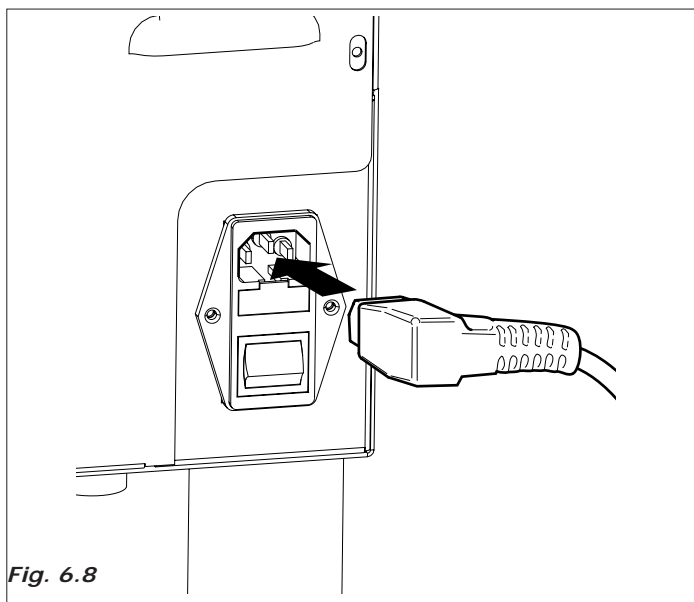


## 6.4 Starting up of the unit

The beverage machine is provided with a connection cable for connection to the mains water supply (fig.6.8) and a switch which cuts off the power from all users each time that it is operated (fig.6.9).

Should it be necessary to operate inside the beverage machine for any ordinary or special maintenance operates, it is necessary to isolate the user appliances by activating the switch (fig.6.10), bearing in mind that with the electrical connection engaged, the power terminals are live.

Each time the beverage machine is switched on a diagnosis cycle is performed in order to verify the position of the mobile parts and the presence of water and of some products.





## 6.5 Installation

### 6.5.1 Boiler fill-ups

The standard boiler fill-up function is provided with a 25 second timeout setting, within which the level detection sensors must detect the presence of water.

If this is not the case, the "LACK WATER - CALL SERVICE" message comes up on display and the beverage machine will therefore not work for beverage supplies.

It is however possible to start an extended, boiler fill up procedure, in all cases in which total boiler fill-up is required, for instance at first machine installation, or after the boiler has been emptied out for moving and transporting of the beverage machine.

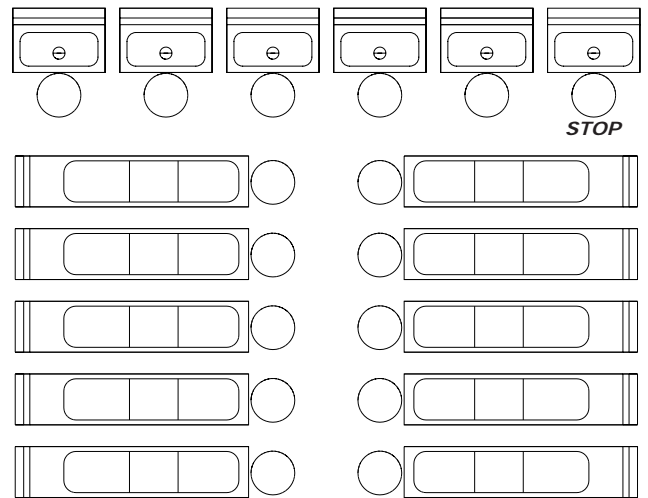
In order to start said first-time boiler fill-up procedure, it is necessary to press the "STOP DISPENSING" key located on the beverage machine's keypad within the first 2 seconds after having started the machine up and to hold it pressed in for 3 seconds.

In this case, the boiler fill-up procedure must complete itself within 4 minutes. Should the boiler not fill-up within a 4 minute timeout, the beverage machine will keep trying for 3 hours with water entry electro valve switch-on and switch-off cycles respectively of 4 and 6 minutes each, in order to avoid overheating of the electro valve winding.

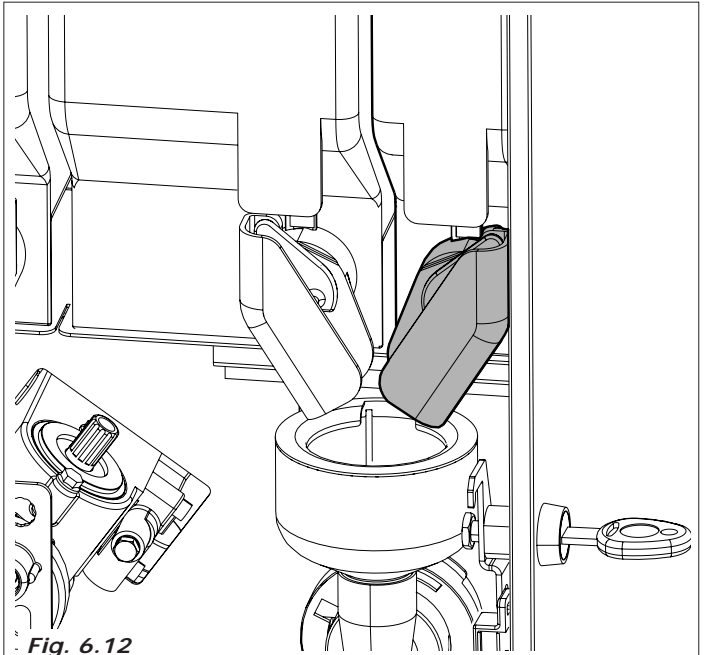
- at the end of the water filling (*Fig. 6.12*), effect a cleaning cycle of the mixer group so as to fill all the circuits and remove eventual residues from the boiler.



*In the beverage machine's installation phase, ascertain, before switching it on, that the same is connected to the water supply and that the water faucet is open.*



**Fig. 6.11**




**Fig. 6.12**

### 6.5.2 Cleaning of the parts in contact with food substances

With beverage machine switched on effect a cleaning of the mixers pressing the buttons according to what is described in the service functions so as to eliminate any dirt from the coffee boiler and the instant boiler.

- wash your hands carefully
- prepare an anti-bacterial cleaning solution with a chlorine base (products that can be purchased in pharmacies) following the concentrations given on the product instruction labels.

 Before removing the container lower the flap in order to prevent the accidental escape of the soluble product inside the same (fig. 6.13).

- Lift the beverage machine's top shutter door (fig. 6.14).
- remove all the product containers from the beverage machine (fig. 6.15).
- remove the lids from the product containers covers and product chutes (Fig.6.16). Dip all in the solution previously prepared

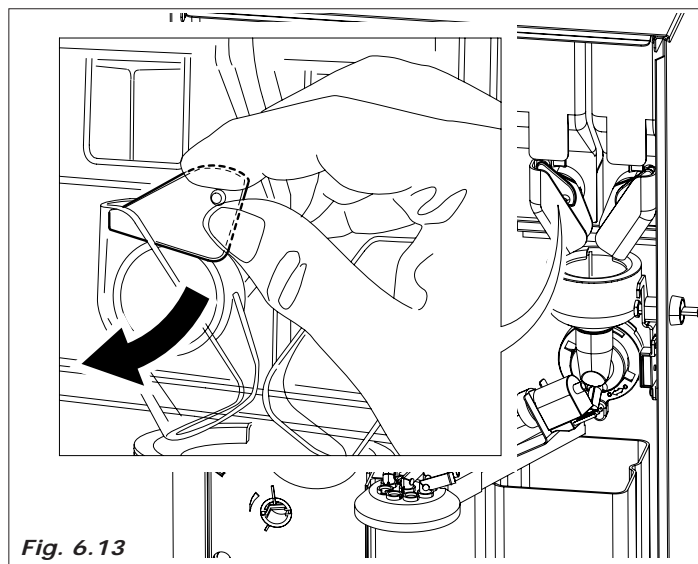


Fig. 6.13

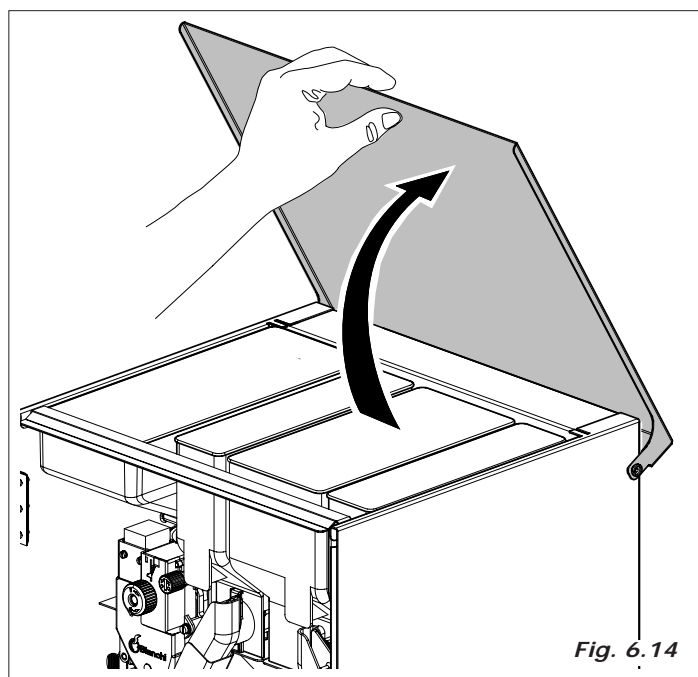


Fig. 6.14

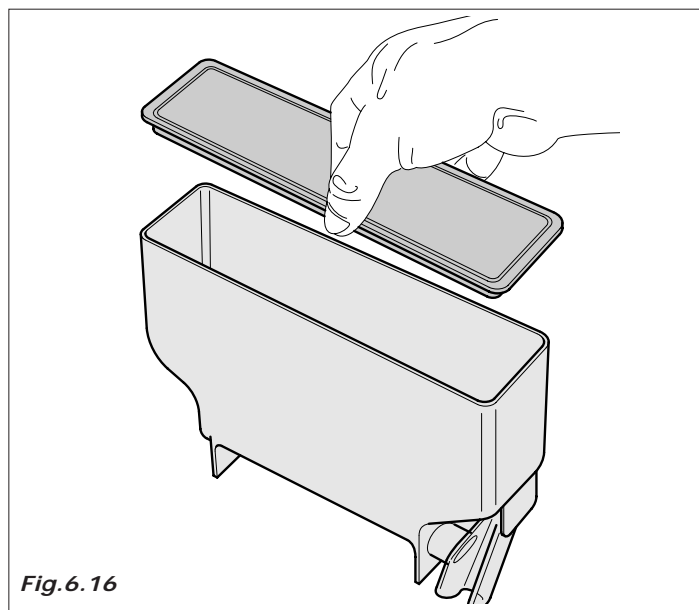


Fig. 6.16

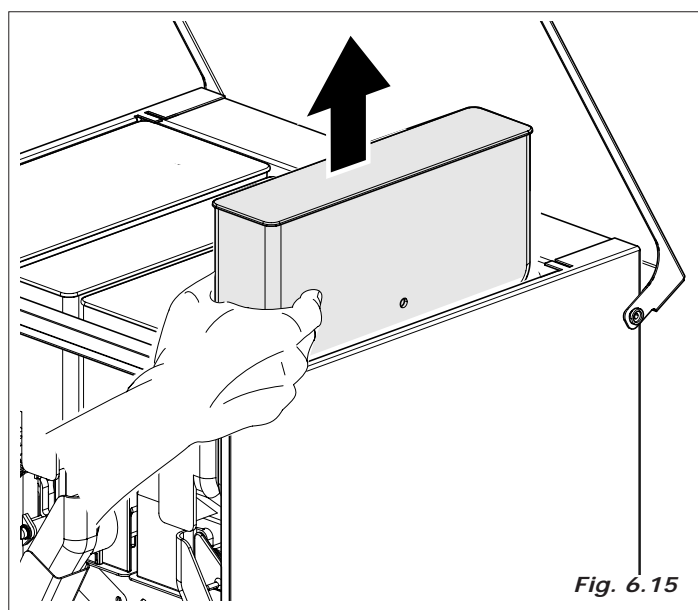


Fig. 6.15

- remove all the powder chutes, water funnels, mixing bowls and whippers and silicone tubes and dip these parts also in the prepared solution (Fig. 6. 17)
- with a cloth soaked with the solution clean the whipper assembly base (Fig. 6. 18)
- the parts must soak in the solution for the time indicated on the solutions' instruction label.
- Recover all the parts, rinse them abundantly, dry them perfectly and proceed with the re-assembly in the beverage machine.



After re-positioning the container undertake to raise the flap in order to reset the correct function (fig. 6.19).



For further safety after the assembly of the parts, effect some automatic cleaning cycles so as to eliminate any eventual residues.

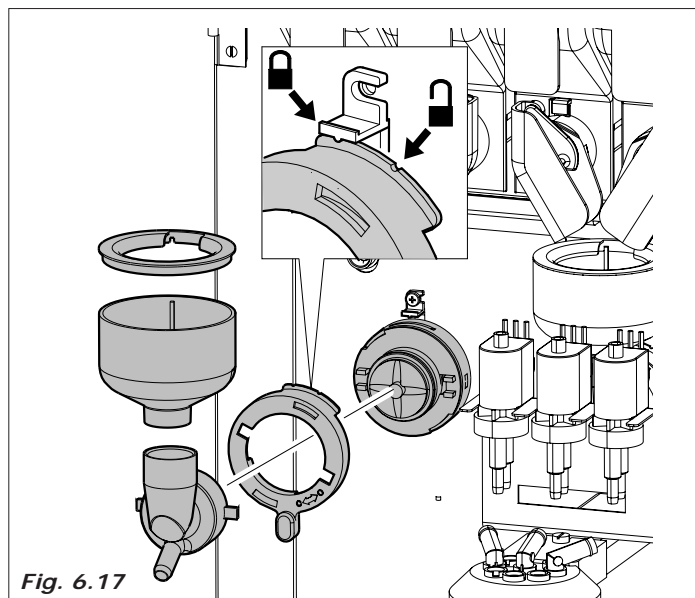


Fig. 6.17

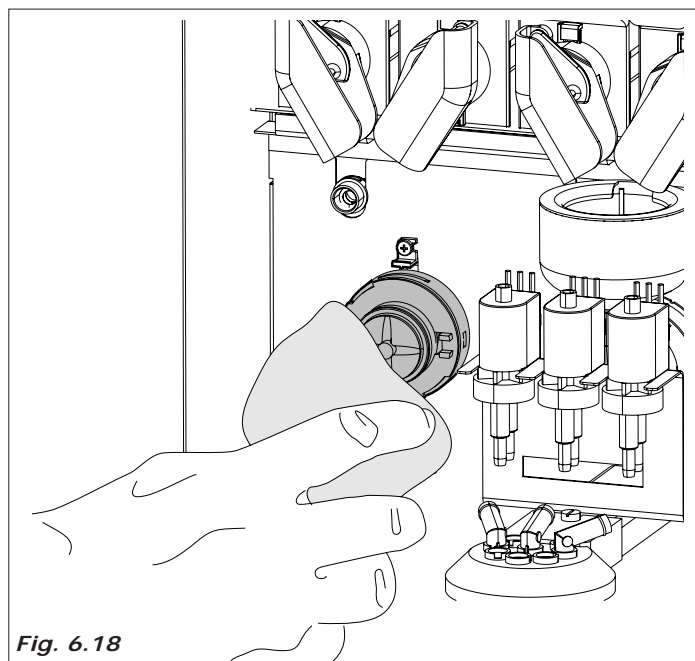


Fig. 6.18

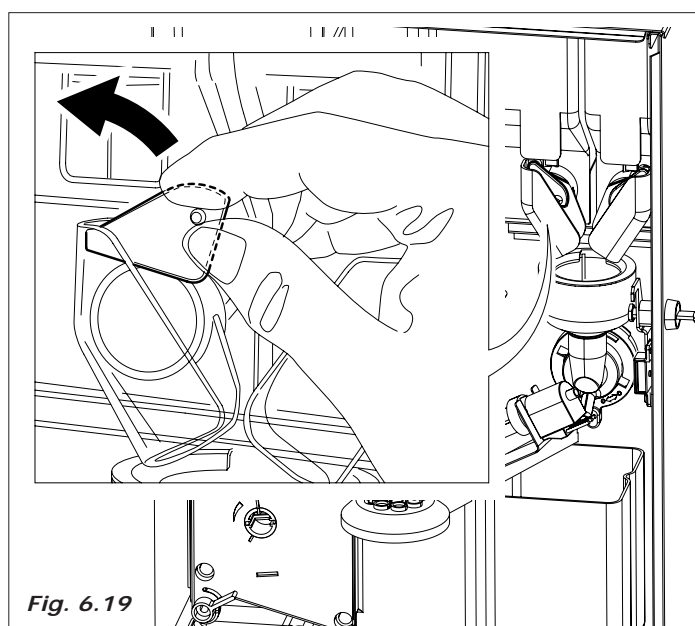


Fig. 6.19



## 6.6 Product container loading (with machine off)

### 6.6.1 Loading containers

Filling is possible keeping the containers inserted, and by raising the upper flap of the beverage machine (Fig. 6.20) or by extracting each container.

For granulated coffee in particular it is necessary to close the closure plat before extracting the container. (Fig.6.21).

- remove the covers of each container and load the product according to the product indicated on the label (Fig.6.22-Fig.6.23).
- pay attention that there are no clots, avoid pressing the product and using an excessive quantity, so as to avoid its aging in relation to the consumption foreseen in the time period between two loadings.

Check the container product capacity in the section TECHNICAL CHARACTERISTICS.

### 6.6.2 Payment system installation

The beverage machine does not have a payment system; any possible damages to the beverage machine itself and/or objects and/or people deriving from its incorrect installation are responsibility of who installs the payment system.

The switches are to be directly connected to the keyboard card, the executive serial systems require the RS232 payment system kit supplied separately.

Then go into programming for the correct settings.

Consult manual "Software instructions" so as to verify setting of the parameters, that must be coherent with the system used.

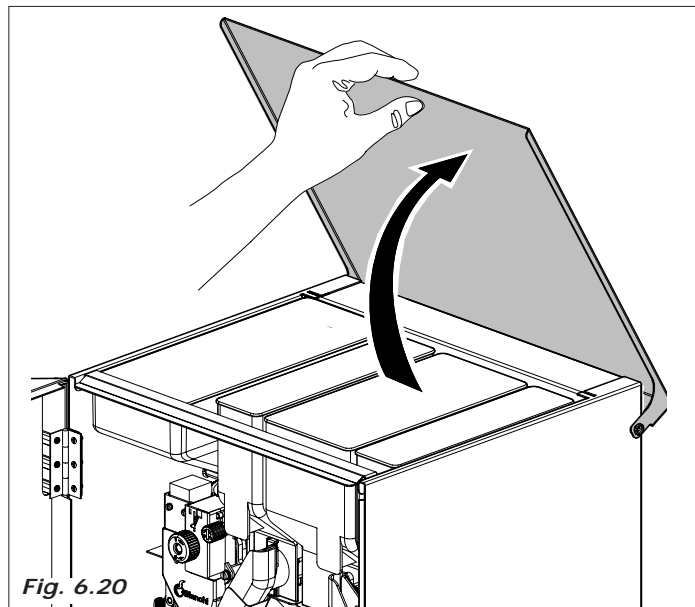


Fig. 6.20

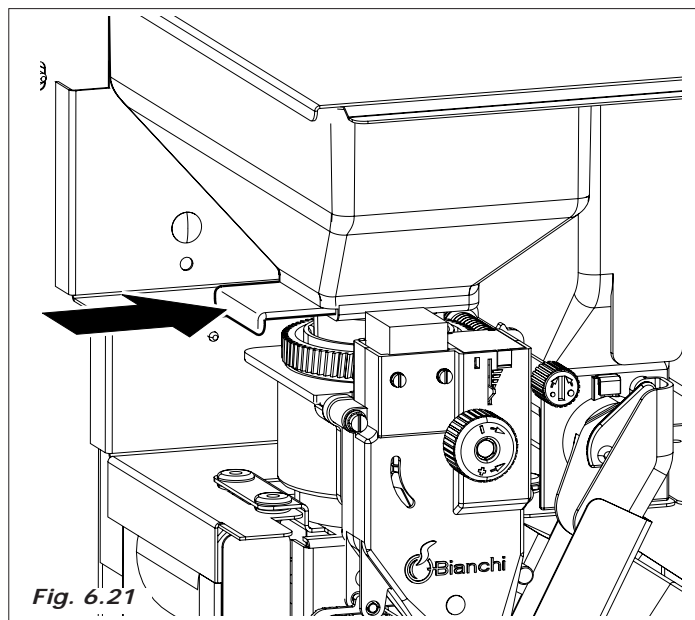


Fig. 6.21

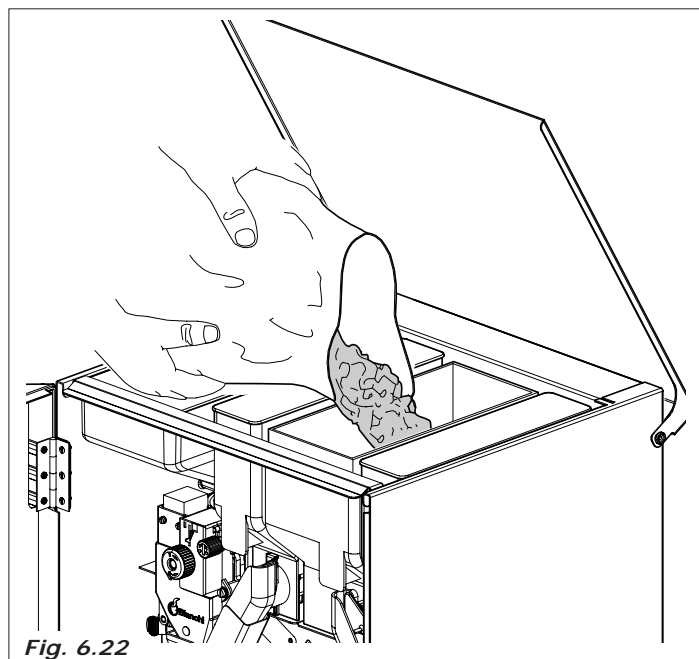


Fig. 6.22

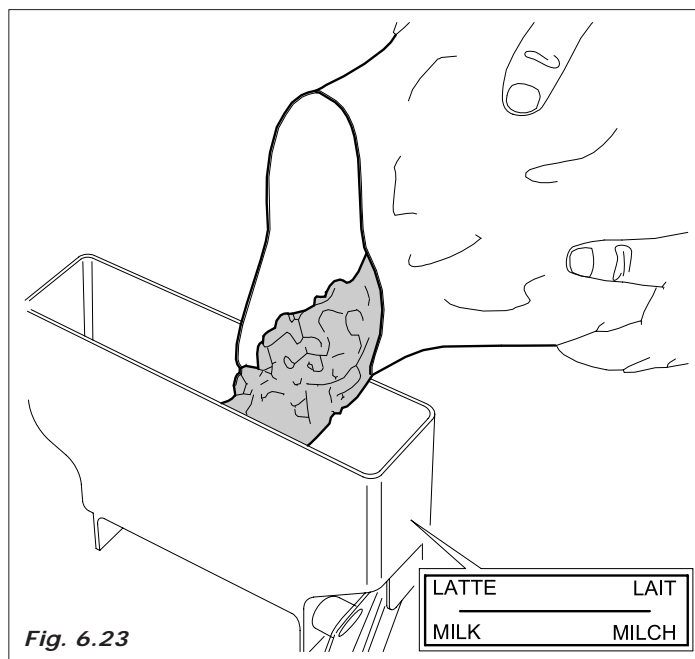


Fig. 6.23

LATTE	LAIT
MILK	MILCH



## 7.0 MAINTENANCE AND INACTIVITY



### 7.1 Cleaning and Loading



So as to guarantee the correct functioning of the beverage machine during time it is necessary to effect some operations periodically, some of which are indispensable for the observance of the health standard norms. These operations must be done with the beverage machine open and switched off. The cleaning operations must be effected before the loading of the products. In order to guarantee normal operation, the machine must be installed in areas that the environmental temperature is between a minimum of  $-1^{\circ}\text{C}$  and a maximum of  $+32^{\circ}\text{C}$  and humidity of not over 70%. Must not be installed in places where cleaning is done with water hoses(ex. big kitchens.). Do not use water jets to clean the machine.

#### 7.1.1 Procedure for beverage machine cleaning

##### Recommended equipment:

For those responsible for filling up and maintenance of the machine the recommended equipment is as follows:

- Tool carrier case
- Clean uniform
- Disposable gloves
- Clamp for closing the
- Roll of kitchen paper
- Wood or plastic stick
- Bottle of detergent
- Bottle of disinfectant
- "Beverage machine out of action" sign
- Small table for resting items (optional)

##### Never use:

- Sponges, scourers, cloths
- Brushes
- Screwdrivers or metallic objects.

##### To ensure hygiene:

- Use disinfectants

##### For cleaning:

- Use detergents and/or deterative products
- The purpose of the disinfectants is to destroy any surface bacteria which may be present. The detergents act to eliminate the dirt. Products exist on the market which are both detergents/disinfectants and are usually sold at the chemist's.
- On application of the HACCP certain hygienic regulations are laid down for company self-checking procedures concerning :
- Cleaning of the premises
  - Product transportation
  - Machinery maintenance
  - Waste disposal
  - Drinking water procurement
  - Personnel hygiene
  - Food product characteristics
  - Personnel training
  - (Directive 93/43 CEE)

##### The cleaning operations may be undertaken:

- 1 at the site of installation of the automatic beverage machine
- 2 at the premises of the company that provides the service

##### Example of a recommended cleaning procedure of a hot drink automatic beverage machine :

The person responsible for machine hygiene, before opening the beverage machine must check the cleanliness of the surrounding environment and put up a sign to tell any potential consumers that:

- the machine is "out of use as maintenance is in progress"
- it is important that the person responsible for cleaning never has to interrupt his work in order to operate the machine.

#### 7.1.2 Periodic cleaning by the maintenance technician

**First step:** disposal of the waste inside the waste bins (used cups, stirrers, paper, tissues etc). Once the waste has been disposed of it is possible to clean the surrounding area.

- elimination of the coarse dirt
- disinfecting of the flooring and walls of the area surrounding the machine up to a radius of 1 metre around the beverage machine
- once this is complete proceed with opening the beverage machine .

#### 7.1.3 Daily cleaning recommended

The objective is that to avoid the creation of bacteria in the food zone areas.



For all cleaning operations follow the instructions indicated in paragraph 7.1.1.

Operate as follows:

- clean all the visible parts in the dispensing area. (Fig. 7.1 e Fig. 7.2)

remove and clean carefully:

- funnels and powder chutes (Fig. 7.3-pos. 1)
- water funnel (2), mixing bowls (3) whipper assembly (4)

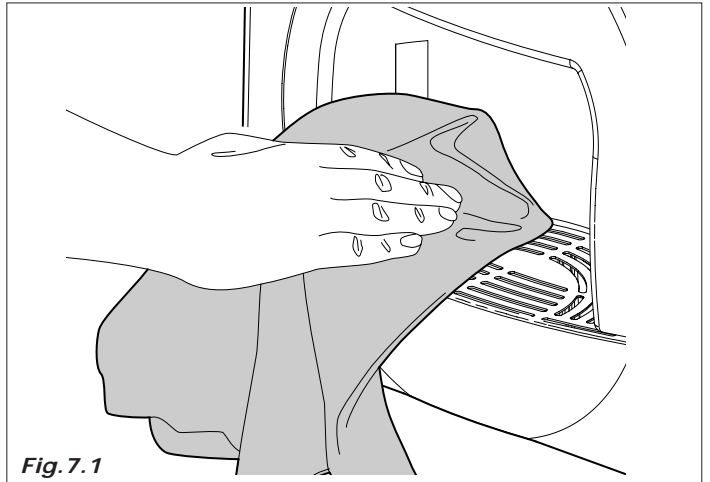


Fig. 7.1

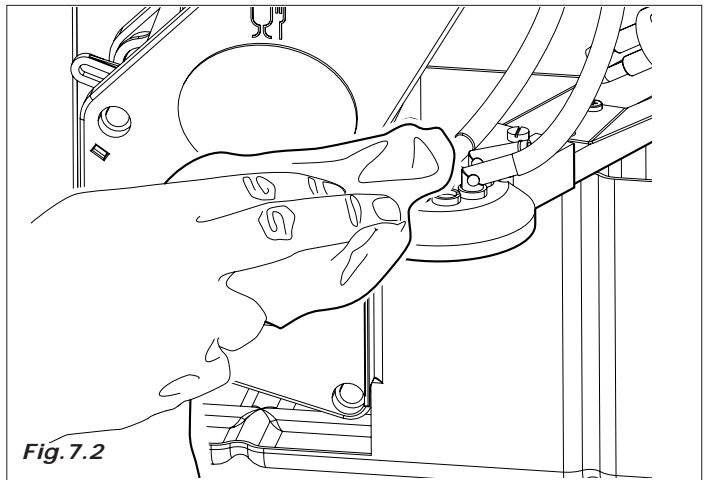


Fig. 7.2

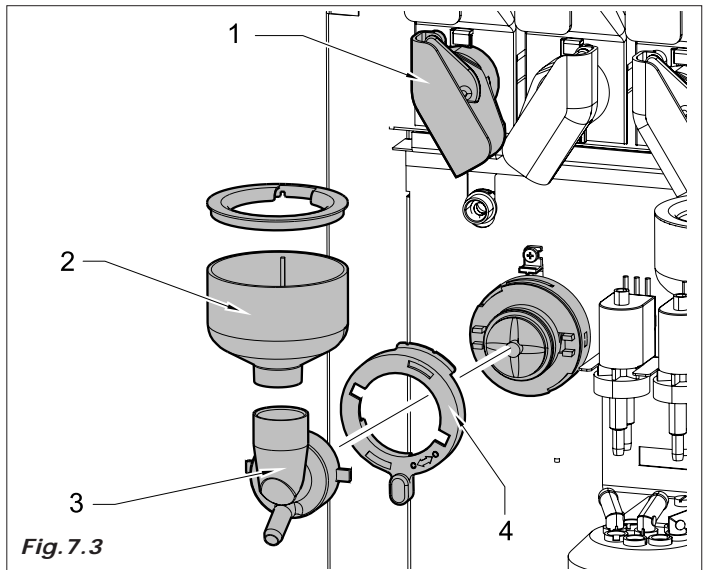
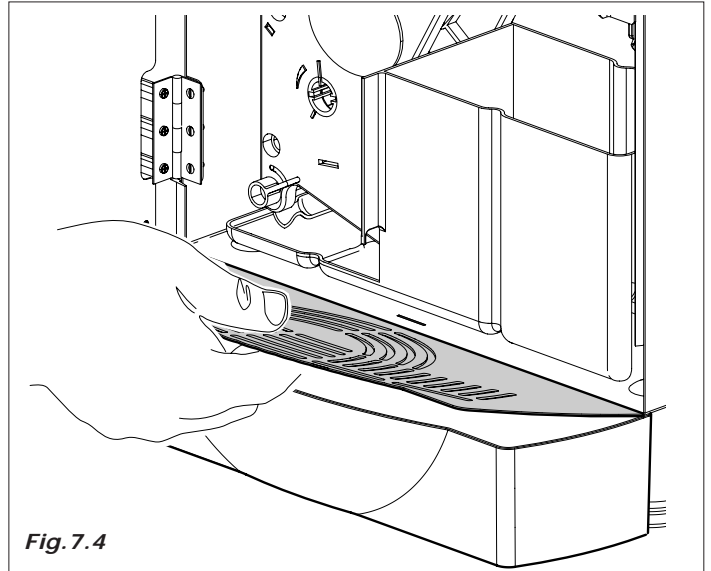


Fig. 7.3

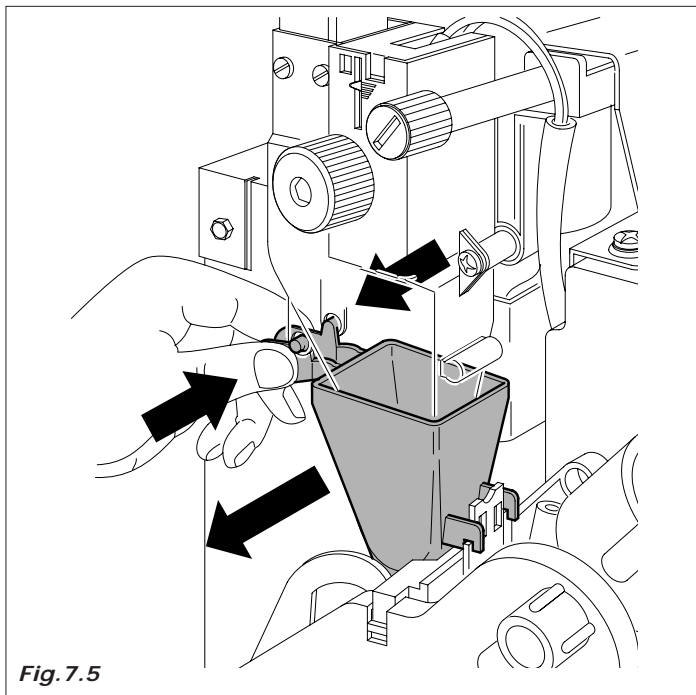
- silicone water dispensing tubes.
- dispensing chamber (Fig. 7.4)
- coffee funnel and chute (Fig. 7.5)

Before effecting the re-assembly operations clean all the elements carefully.

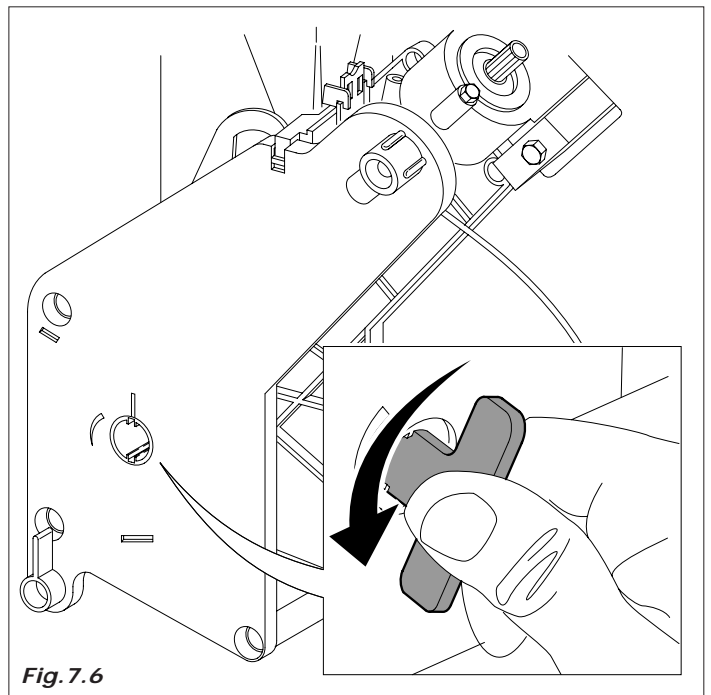
- remove all coffee powder residue; the unit can be removed from its housing to make the task easier (Fig. 7.6)



**Fig. 7.4**



**Fig. 7.5**



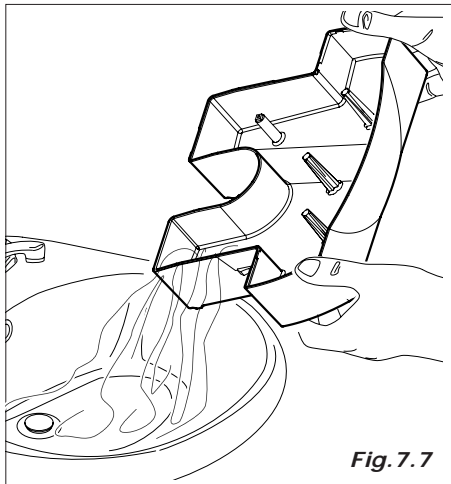
**Fig. 7.6**

- Empty out the discharge liquids tray - clean and/or replace (Fig. 7.7).
- substitute the coffee spent grounds container (coffee in beans versions) (Fig. 7.8).

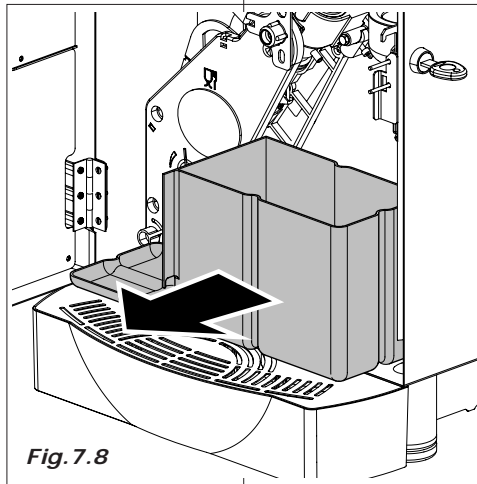
**Last step:** coin collection.

#### 7.1.4 Weekly cleaning

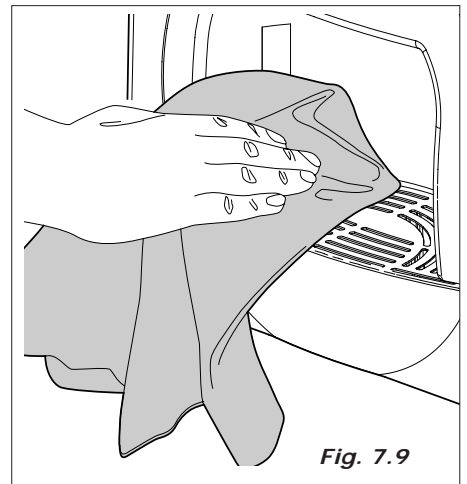
Remove all the containers and clean with a wet cloth all the container support parts, as well as the bottom of the beverage machine and the outside of the beverage machine, in particular the dispensing area. (Fig. 7.9).



**Fig. 7.7**



**Fig. 7.8**



**Fig. 7.9**

### 7.1.5 Product loading

When necessary provide for the loading of the products and/or consumption materials of the automatic vending machine.

For these operations please refer to the operations described under chapter 6.6 (first installation).



## 7.2 Recommended maintenance

TYPE OF INTERVENTION	TIME / No. of COUN		
	EVERY DAY	EVERY WEEK	20000 COUN OR MAX EVERY MONTH
Remove and wash all visible parts in the delivery area with sanitizing liquid.	•		
Empty the liquid ground collecting buckets and clean them with sanitizing liquid.	•		
Empty the coffee ground collecting tank and wash it with sanitizing liquid	•		
Remove all containers and clean with a wet cloth all container supporting parts, as well as the bottom and the outside of the beverage machine, in particular the delivery area; then proceed to sanitization.		•	
* Sanitization kits including plastic parts for the passage of pulverized or liquid product (cups, pipes, delivery flange, nozzles,...). For any further information, please contact directly our offices.			•
* Bianchi Vending Group has prepared specific kits expressly designed for every beverage machine mode			

### 7.2.1 Ordinary and Extraordinary Maintenance

The operations described in this section are purely indicative as they are tied to variable factors such as the water hardness, humidity, products used and workload, etc.



*For all operations that require the disassembly of the beverage machine's components, make sure that the latter is switched off.*

Entrust the operations mentioned here below to qualified personnel.

If the operations require that the beverage machine be switched on, entrust them to specially trained personnel.

For more complicated interventions, such as removing the lime build-up in the boilers a good knowledge of the equipment is necessary.

Monthly effect the debacterisation of all the parts in contact with food substances using chlorine based solutions following the operations already described under chapter 6.5.

### 7.2.3 Coffee group maintenance

Monthly extraction of the unit and thorough rinsing in hot water is recommended.

The necessary requirement for this operation is that the coffee unit is in idle position.

Then detach the pipe indicated in Fig. 7.10, unscrew knob **A**, rotate lever **B** (Fig. 7.11) and then remove the entire coffee unit.

Every 5000 vends and anyhow monthly, it is advisable to lubricate all the mobile parts of the group, using silicone grease for alimentary use Fig. 7.12):

- lower filter piston (1)
- connecting bar (2)
- piston guide (3)

Every 10000 vends we advise to substitute the gaskets and the filters.

- gaskets
- Loosen the screw (Fig. 7.13), wash the filter and replace if necessary.
- re-assemble everything in the inverse order.

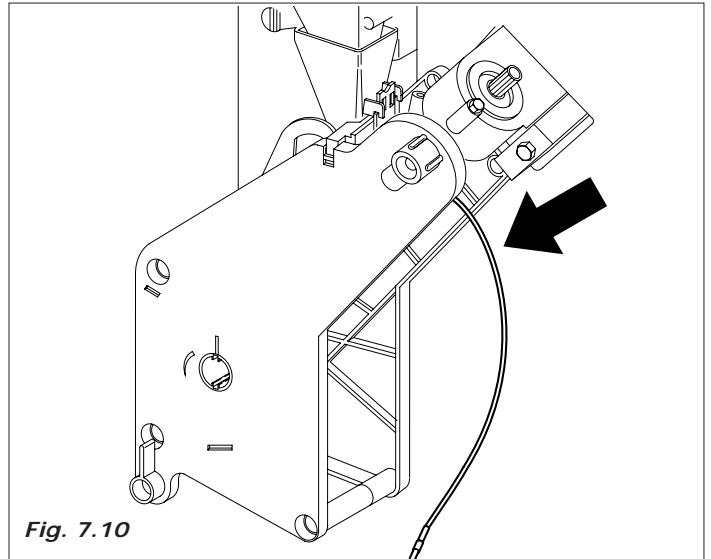


Fig. 7.10

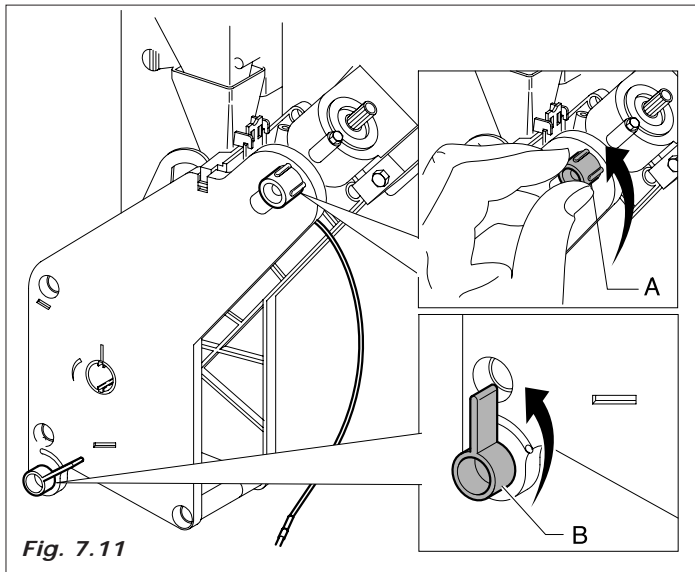


Fig. 7.11

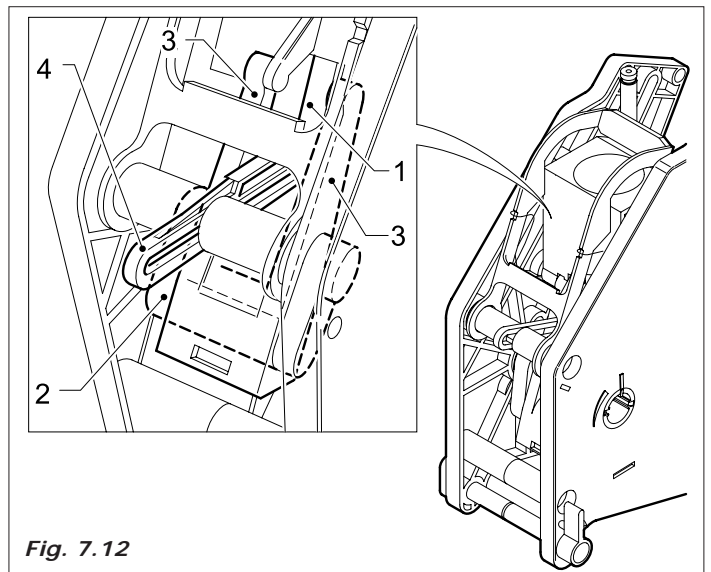


Fig. 7.12

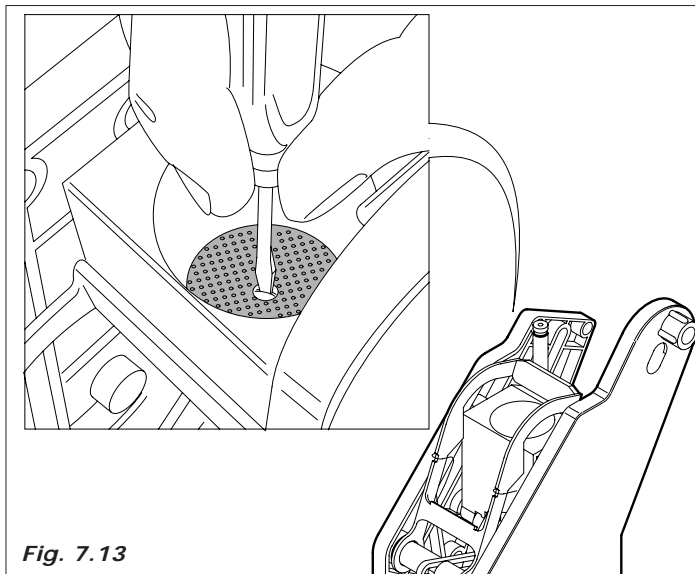


Fig. 7.13

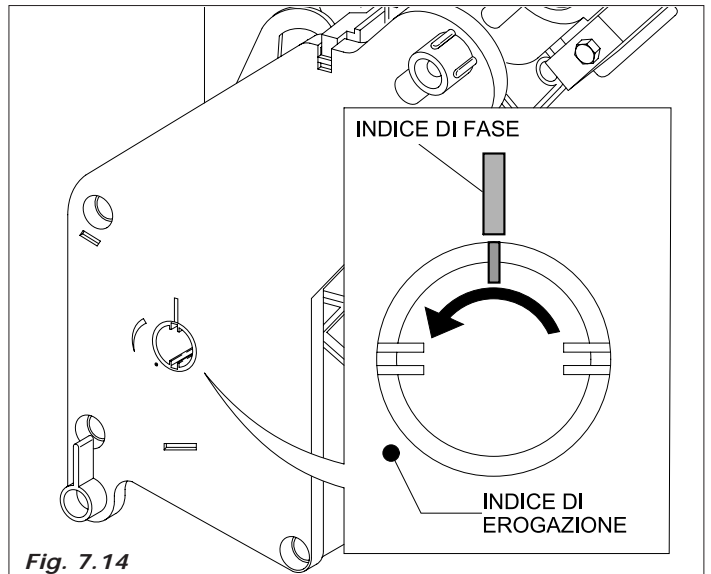


Fig. 7.14

### COFFEE MACHINE TIMING CHECK PROCEDURE

Ensure that during the idle state, the rotating index is aligned with the stage index (see fig. 7.14)

Ensure that during the delivery stage that the rotating index is not more than 1.5 mm in advance of the delivery reference point (the rotating index must be at a delivery position of between 0 and 1.5 mm from the delivery point).



### 7.3 Regulations

#### 7.3.1 Dosage and grinding regulations

The beverage machine is supplied regulated with standard values and i.e.:

- TEMPERATURE of the coffee in the cup of about 78°C for 38 cc of dispensed product
- TEMPERATURE of the instant products in the of about 73°C
- grams of coffee powder, about 7,0 grams
- grams of instant powder products according to what is indicated on the specific tables.

In order to obtain the best results with the product used we advise to check:

- *Ground coffee gram weighting:* vary the quantity using the knob positioned on the measuring device (Fig. 7.15).  
Each notch of the regulation knob corresponds to a value of 0.05 grams.  
By turning in a clockwise sense the amount decreases.  
By turning in an anti-clockwise sense the amount increases.  
The variation in the product can be controlled by means of the reference notches on the body of the measuring unit (see figure 7.15)
- *Coffee pellets must be have a compact consistency and be slightly damp.*
- *Regulation of the degree of grinding.* Turn the screw (fig. 7.16) to obtain the desired results.  
Turn clockwise for fine grinding, turn anti-clockwise for coarser grinding.  
After regulation, three product regulations must be carried out in order to assess the efficiency of the regulation, the finer the granules the greater the time required for product delivery.

#### 7.3.2 Regulation of the instant solenoid water delivery valves (version soluble only)

In the case of soluble products you can regulate the quantity of water and the powder dosage electronically by varying the standard parameter, according to the procedure indicated in the manual "Software instructions".

Due to problems caused by the formation of lime scale the instant solenoid valves can have a reduced water delivery.

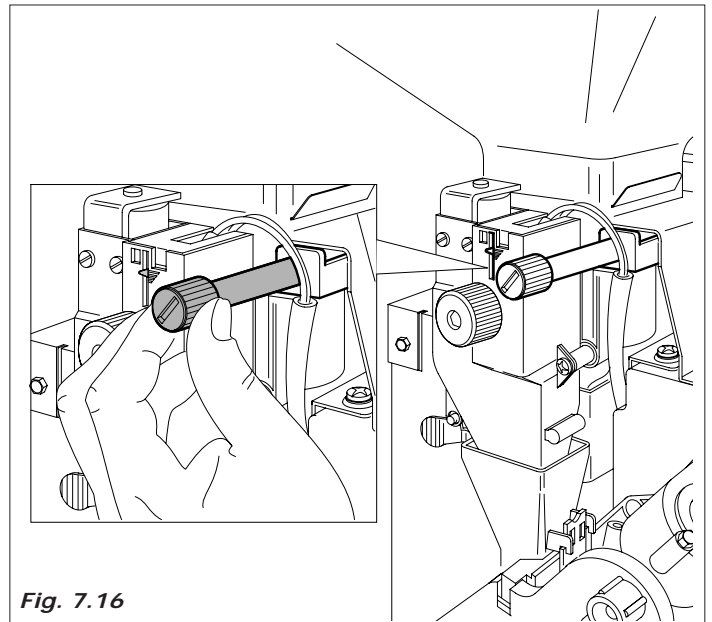
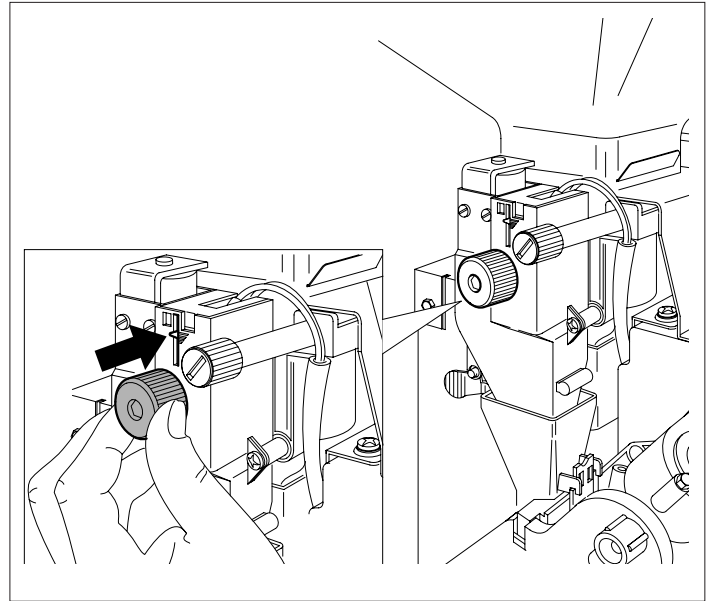


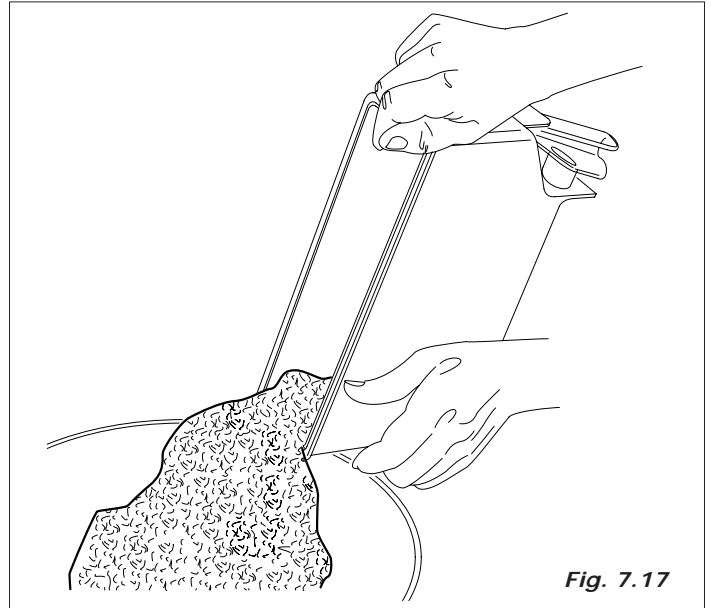
Fig. 7.16



## 7.4 Inactivity

If the automatic vending machine remains inactive for a long time it is necessary to perform some prevention operations:

- disconnect the machine electrically and hydraulically.
- empty completely the instant boiler and the floater reservoir removing the plug located on the hose along the drain chute.
- Put the plug back in once the draining has been done.
- unload all the product from the containers (*Fig. 7.17*)
- perform a thorough cleaning of all the parts in contact with food substances according to what has already been described.
- empty the liquid waste bin carefully
- eliminate the spent grounds bag
- clean with a cloth all the internal and external surfaces of the machine.
- protect the outside of the machine with a plastic film wrapping or bag.
- stock in a dry and protected place where the temperature is not less than 1° C.



## 8.0 DISMANTLEMENT

Proceed with the emptying of the products and of the water as described in the previous paragraph.

For the dismantlement we advise to disassemble the machine dividing the parts according to their composition (plastic, metal etc.).

Subsequently entrust to specialised companies the parts divided in this manner.

*Attention! Check that the machine disposal is performed with respect of environmental rules and according to the regulations in force*





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